

# MARINE RECORD

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To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and improve the character of the service rendered to the public.

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### SHORTAGE OF NAVAL ENGINEERS.

The naval engineer has become one of the potentials of the service. The modern steamship, whether of the commercial or the fighting type, is an assemblage of machinery. The *Lucania*, for instance, of the Cunard line, has two sets of triple-expansion engines. Each set comprises five cylinders. The steam is supplied by twelve main and two auxiliary boilers, having a total of one hundred and two furnaces. The auxiliary machinery comprises air, circulating, feed, bilge and fire pumps, fans, electric light, evaporating and distilling plant, refrigerating engines and deck machinery. The working staff, according to the Nineteenth Century, consists of twenty-two engineers, two electricians, one boiler maker, twenty-nine greasers, seventy-eight firemen, sixty trimmers, two donkey engine men, two storekeepers, with seven engineers on a watch. This crew, in comparison with that of the warship *Terrible*, is twenty-two engineer officers to seven of the cruiser, and yet this fighting machine has two sets of triple-expansion engines; three times as many subsidiary engines as the *Lucania*. It is evident that the naval vessel is undermanned, and in case of actual warfare the staff would be practically unable to stand the stress of severe duty, without exhaustion, to say nothing of the casualties that might occur in actual battle. Under ordinary conditions it is not uncommon for engineers to break down in health and mind, and if the tension of service is too severe in the piping times of peace, what might it not be in the harassing and ceaseless watch of battle. Moreover, it is not easy to fill vacancies and it takes some years to develop a capable engineer. This matter is becoming one of serious moment to governments and naval authorities, who, in the forecast of possibilities, can see a fleet disabled, captured or sunk for lack of efficient service in the engine room. It is a matter of engines as of guns, and of machinists as of gunners, and if warships are to be part of the armaments of nations, and sea-fights must continue their series of Trafalgars, the men who run the machines are as indispensable as the old salt behind the gun. There is a wide field for engineers and machinists in the navy of the United States, and it would seem that with proper inducements and the necessary training, that a reserve of competent men could always be maintained for active duty in any kind of emergency. The mechanical instincts of the average American youth are of high grade, and with certainty of fair employment and good wages, and fair prospects of promotion, he ought to be in sufficient evidence to abate any alarm that may be felt as to a possible shortage of skilled men below the decks of either a cruiser or a merchant ship.

### SHIPPING COAL TO LONDON.

The first cargo of Pennsylvania soft coal ever sent from Philadelphia to London will leave shortly on the British steamship *Queenswood*, which has just been chartered for that purpose. It is said that only two other cargoes have ever been shipped to London from this country, and these were sent from Norfolk.

Unusual importance, it is said in coal circles, attaches to the present shipment, because the coal is to be used as fuel by English railroads, principally the London and North-western, whose expenses have been considerably increased of late by the high prices they have had to pay for English coal. The *Queenswood* cargo will consist of 4,000 tons, for which she will receive 16 shillings, about \$4 a ton freight. Even at these prices, which will make the coal cost in England something like \$7 a ton, the Pennsylvania product is said to be somewhat cheaper than the native coal. The *Queenswood* is now due from England, and will load her outward cargo in time to leave Philadelphia this month.

### AN AIR SHIP TRIAL.

United States Consul General Dubois at St. Gall has sent to the department an interesting account of the trial of a great air ship, witnessed by him, which took place on the afternoon of July 2, at Manzall, on Lake Constance, Switzerland. The great ship, 407 feet long 39 feet in diameter, and containing 17 separate balloon compartments filled with hydrogen gas, was floated out upon the waters of the lake on a raft.

Count Zepherin and Eugene Wolf, the famous explorer, together with Baron Bassus, who accompanied the party as meteorologists, were in charge of the trial. When all was made ready, the balances were adjusted so as to give the ship an ascending direction, the propellers were set in motion, and with the wind blowing strongly at 26 feet per second, the cigar shaped vessel made a slow, graceful ascent and started on her cruise through the air. For a total distance of 10 miles the ship soared high above the lake, reaching at one time an elevation of 1,300 feet above its waters, when it suddenly stopped short, settled gradually and floated safely on the water. The cause of the sudden stoppage in its flight was a slight mishap to the steering apparatus, but this happening created no danger as the vessel sank upon the surface of the lake without taking any water.

The trip consumed about 50 minutes. The fastest time made was five miles in 17 1-2 minutes. The ship weighs 22,000 pounds and cost considerably over \$200,000.

### SANITARY CANAL AT CHICAGO.

Major J. H. Willard, United States Engineer at Chicago, was on Monday given a trip on the south branch of the river by members of the River Improvement Association and the Lake Carriers, in order that he might be shown two sites for winding basins in the south branch. The first one was at Twenty-fourth street, near South Halsted street bridge, where it is proposed to dredge out a vacant lot 500 feet wide to make a turning place for 500-foot ships. Another is planned for the forks of the south branch near Bridgeport. Major Willard expressed himself as being in complete sympathy with the idea, and will undoubtedly give it his support.

The River Improvement Association has selected J. S. Dunham, Murray Nelson, T. T. Morford, and J. G. Keith, vice president of the Lake Carriers' Association, as a committee to arrange for the entertainment of the Congressional committees on rivers and harbors when it visits Chicago on August 21, at the end of its tour of the lakes. The committee will act with the Board of Trade and drainage board in taking care of the visitors during their stay.

### RAILWAY STATISTICS.

During the year ending June 30, 1900, sixteen railway lines went into the hands of receivers, while thirty-nine were removed from such management. There was an increase in that time of nearly 2,900 single-track miles, which is the greatest increase since 1893. The total length of railway tracks in the United States at the time of the last report aggregates more than a quarter of a million of single-track miles.

The number of persons employed on the railways of the United States during the year ending June 30, 1899, was 928,924, an increase of 54,366 over the year before. From the classification it appears that of this number 39,970 were enginemen, 41,152 firemen, 28,232 conductors, and 69,497 other train men. There were 48,686 switchmen, flagmen and watchmen.

Wages and salaries paid out to employes this year aggregated \$522,967,896, an amount of \$77,459,635 in excess of that paid in 1895, and representing 60 per cent. of the operating expenses and 40 per cent. of the gross earnings.

The number of passengers carried during the year was 523,176,508, an increase over 1898 of 22,109,927. The number of passengers carried one mile—that is, passenger-mile—was 14,591,327,613, an increase in this item of 1,211,397,609. The tons of freight carried were 959,763,583, an increase of 80,757,276 being shown. The ton-miles were 123,667,257,153, an increase of 9,589,680,848.

That railroading is an extremely hazardous calling is proved by the figures, which show that one out of every 420 employes was killed, and one out of every 27 was injured. With reference to trainmen—including enginemen, firemen, conductors and other trainmen—one man was killed for every 155 employed, and one injured out of every 11.

Traveling by rail is remarkably safe; for the summary shows that only one passenger was killed out of every 2,189,023 carried, and one injured for every 151,998 passengers carried. This record gives 61,051,580 passenger-miles for one passenger killed, and 4,239,200 passenger-miles accomplished for each passenger injured.

### ADJUSTMENT OF SHIPS' BAROMETERS.

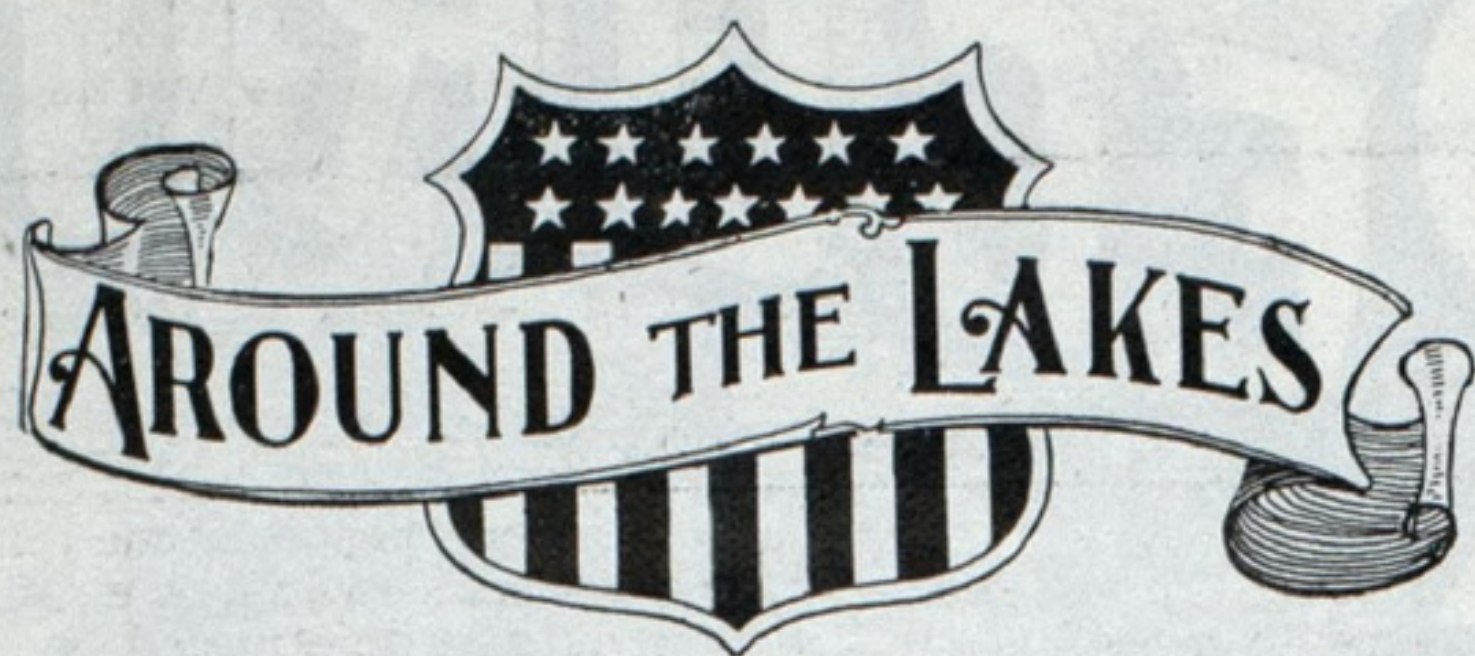
For the convenience of vessel masters passing the St. Mary's Falls ship canal, and for the better conduct of its own work, the Weather Bureau has constructed an office building on the canal grounds near the locks. Masters are invited to call at the office at any time, day or night. The office is supplied with a long distance telephone.

The storm warning flags are displayed on a staff which is located at the northwest corner of the office building. The night warnings (electric light) are displayed from the mast on the top of the building; they are visible for about five miles up the river and about six miles down the river in the new channel.

Special attention will be given to setting barometers, and all masters are requested to avail themselves of the service of Mr. A. G. Burns, who will be found on the locks or at the office.

There is a slight rise in pressure (about two-hundredths of an inch) in passing through the locks bound down and a fall of the same amount bound up. In making a trip from Duluth to Buffalo the changes in the barometer, supposing, of course, that normal weather conditions prevail throughout the entire passage, should be as follows: Starting at Duluth in August the barometer should read about 29.32 inches; at Marquette it should read about 29.35; below the locks at the "Soo", about 29.34; at Alpena, 29.37; Port Huron, 29.39; Detroit, 29.41; Cleveland, 29.42; and Buffalo, 29.39. On Lake Michigan, the barometer should read about 29.40 under normal conditions.





## DETROIT.

*Special Correspondence to the Marine Record.*

The wreckers Saginaw and Wales released the steamer Olympia from the shoal water of Lake St. Clair, and she proceeded on to her port of discharge.

The low, petty, sneak thieves that so regularly infested the river front are not around this season. The city authorities detailed two detectives to watch closely the river traffic and we are now comparatively clear of these people in the excursion or passenger business.

The tug J. W. Wescott, owned by Alger, Smith & Co., and used by that firm at Black River, has been purchased by W. C. Davidson & Son, of Grand Marais. The new owners have taken possession and the tug has gone into commission at Black river. The tug Pensaukee, formerly used by Davidson & Son, has gone out of commission for the time being.

Wreckers working on the sunken steamer C. B. Lockwood have given up hope of raising the boat until the cargo is removed. The steam pumps have failed to take the water out of the hold. The wrecker Wales went to Lorain with part of the cargo, and the Saginaw was loaded on Monday. The Lockwood has been sunk here before, and the big beamy boat may possibly be in more trouble than formerly.

The tug John Gregory came pretty near having her house and stack carried away by the Main street bridge. She was bound out with a mud scow in tow, and had just passed the steamer Badger State, which was across the channel at Farasey & Marron's dock, when the bridge was closed after the schooner Ahira Cobb passed through. The captain of the Gregory tried to check his boat and he remained at the wheel until the house struck the bridge, when he jumped. The engineer on the bridge seeing the danger swung the bridge as fast as possible, and the tug escaped with very little damage.

The year before the government took charge at Sault Ste. Marie the losses from collisions and strandings exceeded \$500,000. Thus far this season the losses in the same channel have been exceedingly small. The one point of the St. Clair flats canal with its ten expensive strandings, have a record twice as large as that of the entire "Soo" passage. At the same time, the Lime Kiln Crossing has cost more money than all casualties combined, and, yet, we don't want too much government supervision, or at a later date, they, the government, will be running our boats and will do as they please regarding them.

Experiment at Marquette this week with the gas engine life-boat was a success. These experiences follow those which were made a year ago, but since those were not for the purpose of testing the efficiency of the engine, which was demonstrated in the former tests, the present experiments were to determine wherein the model of the boat ought to be changed to better adapt it for carrying the engine. There is said to be no question but the gas engine life-boats will shortly be adopted in the service. Officers regard them as the most valuable improvement that has been made in the service in many years.

The movement of lumber is fairly heavy and the feeling is inclined to be stronger. Until a few days ago the owners had been accepting \$2 for lumber from the head of the lakes to Ohio ports, but some owners engaged in the movement of lumber assert that this is not the case now. As the market is getting stronger vessels have not accepted the rate, which was made in secret, but instead, are demanding that the open rate of \$2 be paid, which the shippers are doing. This concession on the part of the shippers in paying the open rate, is taken as indicative of a stronger feeling in the market, or as one which is to the interest of the vessel rather than the shipper.

The Roberta, a well-known steam yacht owned by C. H. Lawrence, of 50 Pitcher street, was totally destroyed by fire, on Friday, a few miles from Put-in-Bay. She was going to tow some of the yachts that had taken part in the races back to Detroit. The crew, of which Capt. Jarrett was at the head, escaped with difficulty. The fire probably smoldered in the coal bunkers a long time before it burst out. The engineer risked his life in going into the engine room and stopping the boat. The crew landed at West Sister Island and were picked up by the Ogontz and taken to Put-in-Bay. They lost everything but what they stood in and were glad enough to escape without bodily injury.

The Canadian papers are again agitating the canal project, by which boats from Lake Superior could reach Montreal and thence the ocean, by the way of Georgian Bay. Civil Engineer Geo. Y. Wisner, while admitting that it is practicable from the engineering point of view, and would make a short canal, says it would be a financial failure, because the ore would continue to go to Lake Erie, on account of the fact that it must be taken where

there is coal, and because there is not enough wheat to export to make such a canal pay. Besides, he says, the eastern states will buy more and more of the wheat raised in the northwest, and proportionally less will be sent abroad.

It is said that the stockholders of the White Star line are planning to build a new propeller for the Detroit-Port Huron route. The White Star line has long had an ambition to control that branch of the lake traffic, and the Tashmoo is not enough. The Idlewild and the Arundel are the property of the Darius Cole estate. They are remarkably economical boats and can be run cheaply. The executors of the estate, Messrs Lee and Maxwell, do not care to sell the two boats, although report has it that they have been offered double their real value if they would sell to the White Star line. The boat contemplated would carry about 1,200 people and several hundred tons of freight, at about the same speed as the Tashmoo. Such a boat would add greatly to the accommodations between Port Huron and Detroit.

Grand President Ryan, of the Licensed Tugmen's Protective Association, spent Saturday and Sunday in the city, organizing the local tugmen into a union. The organization was effected Sunday afternoon, with 65 charter members, not all of whom are of Detroit. The fee of \$8 which was announced long ago, attracted several from other ports, where the fee has been placed at \$50. The fee of the Detroit branch is to be held open for the next 10 days at \$8 and will then be raised to the usual \$50 fee. Capt. Charles W. Jarrait was elected president and Nelson Sayan secretary. The men agreed to stand for the union scale of wages, which is about twice what is now paid by Detroit tug owners, and the men say that the increase will come without trouble. It should be remembered, however, that there is very little towing done in or about this port.

The schooner J. S. Richards, in tow of the tug Creswell, was run into and sunk by the steamer J. W. Moore, abreast of Walkerville, on Wednesday morning. Two sailors, John Ives, of Sandusky, and Jack Kelly, of Rochester, N. Y., were drowned. The rest of the crew were saved. The Richards was bound down the river with a cargo of pig iron, while the Moore was bound up. The schooner quickly went to the bottom after the crash and now lies in the middle of the channel off Walkerville. The Moore was apparently uninjured, and proceeded on her way. The lost vessel was owned and sailed by Capt. Mayo, of this city. The wreck forms a dangerous obstruction to navigation, and lights must be at once placed upon it to warn passing vessels. The Richards is a schooner, 259 tons, 138 feet long, built in 1869. The John W. Moore is a steel boat, 1,689 tons, 246 feet long, hailing from Cleveland.

Two Detroit shipbuilders were elected directors of the American Ship Building Co.—Alex. McVittie, president of the Detroit plant, and W. C. McMillan, who succeeds G. N. McMillan. Also two representatives of the Rockefeller interests were elected to the board—L. M. Bowers, to succeed Colgate Hoyt, and J. A. McGean, to succeed Samuel Mather. The rest of the board remains the same as last year. The report of the treasurer shows an earning for the year of \$1,352,708 on capital stock, divided as follows: Preferred, \$7,900,000, and common, \$7,600,000. The former officers were retained. Twenty-nine steel boats have been built by the company in the past year, and seven new contracts have recently been completed. Sixteen more steel ships are still on the ways. Of the boats built, six were constructed at Detroit, seven at Lorain, six at Cleveland, six at Chicago and two each at Bay City and West Superior.

The steamers James Watt and Maruba collided at Grassy Island, in the Detroit river, on Friday night. Both ships were badly battered, but were kept afloat. They arrived here, and the Watts went into the upper drydock. The stem is knocked off and her forward compartment is full of water. The anchor of the Watt and several hundred feet of cable are hanging from the port side of the Maruba abreast of the boiler-house, where it was thrown by the force of the collision. The Maruba's side is jammed in for a considerable distance. The Watt belongs to the Rockefeller fleet and was bound down with iron ore. The Maruba is the property of the Federal Steel Co., and she was bound up without cargo. Neither ship was insured. About 300 tons of the Watt's ore cargo was lightered from her forward compartment. There the ore will be unloaded and she will go to Cleveland for repairs. The steamer Maruba was taken to Cleveland and dry-docked.

Mr. Norman B. Conger, marine agent and inspector for the Weather Bureau, has returned from a tour over the upper portion of the lakes. He was in Alpena Saturday, having returned from Thunder Bay and Middle Islands, where he investigated the feasibility of erecting a steel signal tower at each life-saving station. The towers will be erected and will be a great improvement on the present flag staffs used for that purpose. Each tower proper will be 65 feet high. A steel staff 15 feet high on top of this will place the light 80 feet above ground. The base will be 8 feet square. At present the lamp is run to the top of the pole with a rope, and very often the wind will sway the light and extinguish it. In the new towers this defect will be obviated, as the lamp will be stationary. The illumination will be furnished by a 65-candle power kerosene lamp. Red and white will be the colors displayed. The light in use now can be seen about seven or eight miles, but the mariner will be able to distinguish the new one at a distance of at least 20 miles, a vast improvement over the old light. The towers will be used to display flags and signals in the day time. Mr. Conger states that the new improvements will be finished this season.

The schooner H. W. Sage was struck by the Western liner Chicago, near Harsen's Island, on Monday and sunk. One sailor, an unknown man who was shipped at Manitowoc, was caught in the forecabin and drowned. Ed. Hines, of Cadillac, another sailor, had his arm broken and received other injury. The cause of the collision was the parting of the wheel chains on the Chicago, which swung around in the channel and rammed the schooner amidships. The Sage lies with her bow and stern above water, but the decks amidships are covered. She has a cargo of coal. The Chicago, which was bound down with a cargo of merchandise and grain from Chicago, is badly damaged about the bows, and has returned here for repairs. The Sage was the consort of the steamer Queen of the West, and was in charge of John Laughlin, of Buffalo. She went down so quickly that the men were unable to get their clothing. The following story of the accident was related by Captain Murphy, of the Chicago: "We were going at full speed and had met the tow, bound up. The steamer was passed in safety, and when we were midway between her and the schooner, the wheel chains parted and the Chicago's bow swung toward the Sage. I rung the engineer to back, and our speed was considerably reduced when we came together, else we would have cut the vessel in two. As it was, the Chicago's bow broke a bad hole in the Sage's side, well forward. The Sage sank at once in the channel. We laid at anchor there all night. I think the Sage can be raised very easily." The Chicago's bow is badly broken above the water line, and carpenters are constructing an apron to keep the sea out.

## KINGSTON, ONT.

*Special Correspondence to The Marine Record.*

Word reached here on Tuesday last that the big grain vessel Liverpool, plying between Lake Superior ports and Detroit, had her spars struck with lightning. Several Kingstonians were on board. No one was hurt.

Three hundred members of the Canadian Electrical Association will hold a convention in Kingston, on August 29th, 30th, and 31st. They will hold a banquet, and will be tendered a complimentary excursion to Alexandria Bay, by the mayor and city council.

John Donnelly and diver William Newman returned Thursday morning from Deseronto, where yesterday they succeeded in blowing up with dynamite the barge Puritan, which sank last season in the channel of that harbor, having aboard a cargo of iron ore. The job was executed with neatness and dispatch.

The steamer Kenirving, coal-laden, on her way from Oswego to Smith's Falls, called here on Wednesday. The boat is a new steamer recently constructed at Smith's Falls, by Capt. A. Foster, owner of the steamer John Milne. The Kenirving is nearly the same size and was built for the Rideau canal freight trade.

The Donnelly Wrecking and Salvage Company is about to undertake the task of raising the propeller Oconto, sank in the St. Lawrence river, opposite the Thousand Island park, in 105 feet of water. Ten years ago, while proceeding to Montreal with a general cargo of merchandise, the Oconto struck a dangerous reef opposite the park, stoving a big hole in her hull. She sank almost immediately and has since rested on the river bottom.

The scow Uno, owned at Thousand Island park, has been seized by the customs officers at Clayton, for smuggling, and it is probable that it will be confiscated by the government. Some time ago the scow was working in Canadian waters, and while at Gananoque a stock of provisions was purchased for the use of the crew. When the scow returned to the park the owner thoughtlessly removed the remainder of the provisions to his home. Nothing was thought of it until one of the crew became angry at the captain and informed the customs officials of his action.

## BAY CITY.

*Special Correspondence to The Marine Record.*

About 1,000 people witnessed the successful launching of the schooner Pretoria at Davidson's shipyard last Thursday. The builders state that the Pretoria is the largest wooden ship that has ever been constructed on the lakes. An idea of her capacity may be had when it is known that she will carry 5,000 tons of iron ore, 175,000 bushels of wheat, or 300,000 bushels of oats. The schooner is 350 feet long, 45½ feet beam, and 27 feet deep. She is strongly constructed in every way, has steel keelson plates, steel arches, and is also diagonally strapped with steel. The Pretoria when launched was ready for service and even her sails were bent and running gear all rove off when she went into the water. A large pony boiler is situated forward, and this furnishes steam to all the steam appliances. The steam windlass is on the main deck; the vessel is supplied with the latest improved stockless anchors and is steered by the latest improved steam steerer. A large deck hoist and combination pump is placed amidships for use of moving at dock or hoisting sails or cargo, as well as for pumping the ship. Another large steam pump and steam syphons are situated forward. The Pretoria has a rating of A1\* and also has the highest class in all the insurance registers of New York and London.

COL. CHARLES DICK will accompany the River and Harbor Committee of Congress to Ashtabula on August 7. He will urge that immediate action be taken toward making some necessary improvements at that port.



## BUFFALO.

*Special Correspondence to the Marine Record.*

The grain trade is dull and but few boats are being chartered. The rate out of Chicago has not changed, but the market is weakening, and it is conceded that the break in the coal freights, as showing a weakness in that market, will be none too invigorating on the grain freights.

Singular ruling was that by Justice Kenefick this week, whereby others can appropriate your own dock space if their's is not large enough. According to his decision anyone requiring 500 feet of dockage would be safe on calculating on purchasing, say, half that frontage in the future.

Shippers received a dispatch on Tuesday that there had been a fire in the second hatch of the Rockefeller steamer John Ericsson, and some grain had been damaged. Capt. John Perew, representing the underwriters, was sent to Parry Sound, where the Ericsson is unloading. The fire is supposed to have been caused by electric wires.

About one o'clock Saturday morning, Patrolman Gunn, of the Dominion police, on duty at the west end of the Welland canal near the tunnel, saw two men coming up towards him. He called on them to halt. Whereupon two shots from a revolver were fired at him. Gunn fired one shot in return and the men disappeared. Marks of blood were found and it is believed Gunn hit one of the men.

The losses of marine underwriters between Lake Erie and Lake Huron have been as much this season as on all the rest of the lakes and river channels put together. This has been due in a large degree to the crowded condition of the waterway, the major part of the strandings having resulted from boats getting into crowded quarters. The collision between the James Watt and Maruba Saturday morning in Detroit river was due wholly to this cause, and if the Watt and Tacoma had not gone down the river side by side the collision would not have happened.

Freight rates on lumber by canal have again taken an upward tendency. For some time the prevailing rates on lumber by canal were \$1.15 to Albany and \$1.50 to New York. These were very low figures, considering that the season opened at \$1.50 and \$2 to these places respectively, and the boatmen whose boats were here waiting for loads declined to load at such prices. The rates now being offered are \$1.35 to Albany and \$1.75 to New York. It is expected in some quarters that there will be a still further increase, and that the rates will again reach \$1.50 to Albany and \$2 to New York.

As the elevator business in the harbor stands now the Kellogg and the Watson are doing what they can to stand up against the pool. The Kellogg might have gone into the pool, but the Watson, not having any rail connection, is restricted to canal business. So when it began to do business in the spring the pool houses at once commenced to handle all canal grain free. With the Kellogg on the other side of the harbor and able to load cars, it was then necessary to take much of the rail grain for nothing also, so that it turns out that the greater part of the grain handled here pays nothing for transfer.

The recent contract covering the movement of a block of ore from Marquette to Buffalo at \$1, has revived the interest in the movement of ore. The contract has been, in part, explained. The ore is to be taken to Buffalo furnace, which is a good ways up the creek. Buffalo furnace, however, does not usually take a differential, so this not explain it altogether. The ore is owned by Carnegie, and was left over from last year. It must be moved at once, and rather than set aside any of his own boats for that purpose Carnegie paid the advance rate. Shippers considered this as a feature of what the market is going to be before that ore has all been moved.

There was a general falling off of lake shipments during the past week. The amount shipped was 35,210 tons, by custom house report, distributed as follows: Chicago, 6,300 tons; Green Bay, 4,825 tons; Waukegan, 3,380 tons; Milwaukee, 4,200 tons; Manitowoc, 2,000 tons; Bay City, 1,700 tons; Duluth, 5,550 tons; Fort William, 1,400 tons; Portage, 1,225 tons; Toledo, 1,165 tons; Kenosha, 1,000 tons; Racine, 925 tons; Hancock, 850 tons; Port Colborne, 650 tons; Alpena, 540 tons; Gladstone, 500 tons, all anthracite but the cargo to Port Colborne. Freight rates all down to 40 cents, everyone of the above mentioned being at that figure, but Toledo, which is at 30 cents; Port Colborne, 25 cents.

The Government labor inspector has been after the crews of the Folger line steamers, at Ogdensburg, and caused the discharge of twenty Canadians, who were employed on the boats. This is done under the alien contract labor law. It is a universal law and custom that sailors of any nationality can ship on board of any craft, at any time, otherwise commerce would be interfered with. As it occurs to me, just as an illustration, an American, or rather, a United States crew, ships for London, England. They all desert, few Americans are ashore there now, how long will the ship remain there to get another crew? Even if she was 300 feet in length it might take her 300 days to pick up say 20 to 30 native or naturalized Americans, or, citizens of the United States. Relative to the marine community, this labor element is all off.

The Thew Automatic Shovel Co., of Lorain, shipped a steam ore shovel to Ashtabula during the latter part of the week to be used in loading ore from the stock piles into cars.

## DULUTH-SUPERIOR.

*Special Correspondence to The Marine Record.*

The coal supply at Duluth the coming winter will be the largest in the history of the city. Already the supply is 800,000 tons, or nearly as much as in ordinary years at the close of navigation. Since navigation opened Duluth has received over 1,500,000 tons, but has sent the balance forward to interior points by rail. Of the stock now on hand 200,000 tons are anthracite and 600,000 bituminous. This is about the usual proportion.

The largest sale of lumber made on Chequamegon bay this summer was consummated last Thursday, when the Edward Hines Lumber Co., of Chicago, sold 11,000,000 feet of white pine lumber to the Robinson Lumber Co., of North Tonawanda. Edward Hines and Mr. Robinson negotiated the deal. The stock was sold at \$16 per thousand and involved a financial consideration of about \$176,600. Another deal for the purchase of 75,000,000 feet of timber is now being negotiated by the Hines firm and will probably be closed up this week.

The looked-for slump in the freight rates has set in all right and all lines of trade feel it. The lumber market is too slow for any use, the coal rates have dropped, ore may be cut any day, and the only favorable feature in the grain trade is the big crop. The cut in coal amounts to 25 cents in the last three weeks between Cleveland and Milwaukee and Cleveland and Gladstone. Lumber is now \$2.25 from the head of the lakes to Buffalo and to Chicago. Iron ore is \$1, 90 cents and 70 cents from the head of the lakes, Marquette, and Escanaba respectively.

The news from here is that the freight rate keeps slipping down and is now a flat 1 3/4 cts. on wheat, with rumors of 1 1/2 cts. having been accepted for a small lot, but this could not be confirmed. The rate from here now is 3/8c. under Chicago, a condition that can be only temporary. The weakness is due to the fact that there is little or no demand for grain tonnage, and an entire absence of demand for wild ore tonnage, in spite of the fact that something over 40 of the Rockefeller boats are lying at anchor around the lakes. The season's capacity of these boats would be close to 4,000,000 tons of ore, and it is not hard to imagine what rates would do if they were all moving.

## CHICAGO.

*Special Correspondence to The Marine Record.*

All attempts to break the two-cent rate on corn to Lake Erie were given up, and at this writing the market is firm at that figure and likely to remain so.

It is reported that the vessel agency of Gibbs & Joys, Milwaukee, was dissolved this week, after two years of partnership. Capt. Albert Gibbs, it is understood, will continue the business.

The steamer Mary H. Boyce, bound in with a cargo of coal on Saturday, got across the river at Twelfth street. Tugs released her late at night. The accident was due to the current in the river.

Seven expensive strandings at the Limekiln Crossing, where the Detroit river flows into Lake Erie, having come in quick succession, marks that as the most dangerous point, at present, to navigation on the entire chain of lakes. The losses from these strandings will exceed \$100,000. Some marine men are favoring the establishment of regulations by the general government for the navigation of the cut at the Limekilns with the hope of lessening the danger to vessels. This, however, is an insurance agent's view, and not that of a general navigator on the lakes.

Rates on Chicago grain have been maintained during the month, but in all other lines of lake traffic there has been a material decline. The figures on the three principal grains are:

Year.	Wheat.	Corn.	Oats.
1900.....	1,280,124	13,521,310	3,430,621
1899.....	1,002,002	10,925,213	613,414
1898.....	273,000	8,507,848	3,321,546
1897.....	592,800	12,711,564	4,639,865
1896.....	1,050,870	8,166,766	3,847,877

## CLEVELAND.

*Special Correspondence to The Marine Record.*

The grain rates at Chicago continue stiff with a fair demand. On the whole, however, the tonnage is rather light. Iron ore and other rates remain about the same.

Coal rates have settled at 35 cents to Milwaukee, Escanaba and the head of Lake Superior and 40 cents to Portage. The ore rate from the head of Lake Superior to Ohio ports, which has held steady at \$1 for the past two months, was cut 10 cents this week. Escanaba still holds at 70 cents.

The movement of iron ore continues to be light, a few cargoes occasionally being sent down from Escanaba and Marquette. In general, the wild movement has about died down, although the owners expect a revival of it in a short time, when the ore, which is now being sold, starts to move down the lake.

H. C. Denville, who was formerly in the vessel brokerage business in the Perry-Payne building, but who gave up his position to go on a farm with his father in the vicinity of Cleveland, has returned to his old line of work. "Harry" is generally well liked and will no doubt soon re-establish his connection in the marine business.

Mr. Klock, assistant shore engineer for the Hamburg-American line, has been in Cleveland during the past week looking into the several devices for loading and discharging cargo. Mr. Klock believes that with the information which he has already obtained, a large quantity of Cleveland machinery will be ordered for Hamburg in the near future.

The steamer James Watt, which was in a collision in the Detroit river a few days ago, came into this port on Monday, having been temporarily repaired for the purpose of making the trip across the lake. So far it is not known how extensive her injuries are and they can only be determined when her cargo has been discharged and she has been placed in dry dock under survey.

The Lake Superior coal rate is weak. The freights have not been reduced to thirty-five cents, but unless a change is soon seen nothing can prevent it going down. Reports are constantly being heard that the coal rate has dropped to thirty-five cents to Duluth, but this has not been confirmed by charters reported. In the meantime, owners and brokers are fighting for a fair living rate to the head of the lakes.

Word was received on Wednesday afternoon by Capt. J. C. Gilchrist that the C. B. Lockwood, grounded at the Limekiln Crossing a few days ago, while trying to steer clear of a schooner, has been released and is on her way down. She was not raised without a great deal of hard work, as it has taken about five days to get her afloat again. She will be sent at once to Lorain to discharge her cargo, and may go into dry-dock there for repairs.

## FLOTSAM, JETSAM AND LAGAN.

All three of the big automatic ore unloaders at Conneaut harbor built for the Carnegie company are now completed.

David Herman of Buffalo, engineer of the Western line steamer Syracuse, died this week at Milwaukee, presumably from disease of the heart.

Business is booming at Ashtabula. Some of the steamers had to wait for a dock an entire day on account of the large number of vessels in port this week.

Dredge No. 7, from Cleveland, is now at Ashtabula ready to begin the work of removing the bar near the entrance to the piers at that port. The work is to be begun at once.

G. H. Breyman, of Toledo, has finished his government dredging contract on Saginaw river. His dredge removed the shoals at the mouth of the river. The work started last August and has been prosecuted every day since when the weather would permit. The amount of his contract was \$30,000.

The tower at Big Point Sable is now a very conspicuous object to vessels passing on Lake Michigan. It has been painted in alternate circular streaks of white and black, presenting a most striking appearance. As a further protection against the weather, the tower has been entirely sheathed over with iron.

A large anchor and several fathoms of chain were found on Monday last by Smith Bros., fishermen, near Port Washington, Wis., and were brought to shore where they excited great interest. It is supposed the anchor belonged to the passenger steamer Toledo, which was lost in the vicinity in 1857. There was but one survivor out of a large number of passengers.

The firemen and linemen on the Milwaukee tugs who struck for an advance of wages of \$10 a month won their clause after being out a day. Their demands were granted by the owners of the tugs on Wednesday and the increase was granted to all the firemen and deck hands. Several engineers and captains were discharged for refusing to serve temporarily, as firemen and deck hands, and these will be reinstated.

The Canadian government has decided to put a light on the middle ground on Point Pelee, to replace the one which was burned last April. After that was burned the passage was marked by a buoy. This left that vicinity poorly lighted, and it was necessary for boats that were uncertain as to the passage, to lie at anchor there until daylight. The agitation over the matter has persuaded the Canadian government to place another light there, which will be done as soon as a light-house can be built.

The time is at hand when the government will have to prescribe regulations on Detroit river the same as at the "Soo." It is hazardous for our big ships to run down that river at full speed in a bunch, trusting to luck that they will get through all right. Ships should be prohibited from passing each other when going in the same direction between certain points where a proper distance between them should be maintained. Until that is done we may expect repeated strandings and collisions. It is somewhat odd that the last three ships suffering heavy loss in the Detroit river have not been covered by insurance.

Interruption of Voyage by Cargo Owner—Damages Recoverable.—Where the cargo owner takes the cargo from a vessel before the completion of her voyage, under circumstances which do not entitle her to exemplary damages, she can recover only such damages as will compensate her for the net injury suffered, and from the estimated net freight she would have earned is to be deducted the net amount she earned, or should reasonably have earned, during the time it would have taken her to complete the voyage. The Eliza Lines, 102 Fed. Rep. (U. S.) 184.



## POPULAR ASTRONOMICAL NOTES.

No other portion of the year presents so many favorable opportunities for becoming acquainted with the heavens as these delightful summer months, when so many are enjoying their vacation in the country.

The ideal place for viewing the heavens is on the surface of some placid lake, for there not only is the view unobstructed, but the heavens above are mirrored in the depth beneath and one seems poised midway between two universes. Let us suppose ourselves thus favorably located on a dark, clear night, with faces toward the north. On our left the first object that claims our attention will doubtless be the Great Bear, whose distinguishing feature is the Great Dipper. Following this we note Bootes, not a conspicuous constellation, but always important because it includes within its limits the beautiful Arcturus, the only first magnitude star in that part of the heavens. On our right—toward the north, we cannot fail to notice Cassiopeia's Chair, designated by a quadrilateral of bright stars, with a line of three stars extending downward from the lower left-hand corner, supposed to form the back of the chair, at present not in position to suggest the comfort of the occupant. Still on the right, and toward the south from Cassiopeia extending along the Milky Way, a large cross forms the outline of the constellation, Cygnus. Denob, its brightest star, is toward the north at the top of the standard. Two bright stars, one on either side of the standard, and a third midway between them, form the cross piece. Sixty-one Cygni, a beautiful little double star of the fifth magnitude, is the nearest star to the earth, visible at this latitude. Almost directly overhead is the beautiful Vega, a first-magnitude star in Lyra. Near the western horizon Leo is just passing from view. Toward the southwest Spica of Virgo, a lone first-magnitude star, may still be seen. A few degrees southwest of Vega an arc of third and fourth magnitude stars marks the Northern Crown. Now passing the meridian toward the south is Scorpio, one of the most brilliant summer constellations. The ruddy Antares, sometimes known as the heart of the Scorpion, is its only first magnitude star. The brilliant Jupiter still favors this constellation with his presence. Toward the east, but now approaching the meridian is Altair in Aquila, a first magnitude star midway between two stars of the third magnitude and hence easily recognized.

Almost directly in the east the great Square of Pegasus may once more be found. The diagonals of the square are now respectively nearly perpendicular and parallel to the horizon. A line of stars passing from the lower left hand corner of the square toward the northwest forms the outline of the constellation Andromeda. A few degrees above this line on a dark, clear night the great Nebula of Andromeda, the only one visible to the naked eye may be seen, as a faint, misty spot. Next east of Scorpio is Sagittarius, the Archer. An arc of three bright stars forms the bow, while one in front of the middle star points the arrow. An inverted dipper constitutes the body of the archer, and a group of small stars marks the head. Before the close of the month Capella in Auriga will come into view toward the north east.

Only five first magnitude stars are now visible in our evening sky, the smallest number possible.

Jupiter is still without a rival in our evening sky. Just west of the meridian in the early evening he will continue to be an object of interest and beauty during the month. He is in favorable position for viewing with the telescope, and the ever varying panorama presented by his satellites is always fascinating to the amateur observer. Saturn is still in Sagittarius, and with his rings in most favorable position, presents a marvelously beautiful picture in the field of even a small telescope. Mercury, Venus and Mars can now only be seen in the morning.

Venus will attain her greatest brilliancy about the middle of the month and will at that time present a picture that will repay some effort to behold.

One small group of spots passed across the sun's disk by rotation during the past month. At present his face is free from spots.

D. SATTERTHWAITE, Toledo, Ohio.

A CONSULAR report from Java states that a new source of fuel supply will shortly be made available, says the London Colliery Guardian. This fuel is the residue left after refining the crude petroleum obtained from the oil fields in Koe-  
tei, on the east coast of Borneo. It is maintained that one ton of this liquid fuel is equivalent in steam producing power to two tons of the best Japanese coal. The price is said to be very moderate, taking present values of coal into consideration.

## THE WASTE OF FUEL FROM BOILER SCALE.

The waste of fuel supposed to result from raising steam in lime-encrusted boilers has been made the subject of many a paragraph in text-books and other publications, and most readers are quite familiar with the statement that a film of ordinary scale, not thicker than a sheet of writing paper, would cause the loss of a very appreciable percentage of the coal burned under a boiler—something like 10 per cent.; scale a thirty-second of an inch thick would cause 25 per cent. loss; a sixteenth of an inch, 50 per cent., and so on. Referring to this recently in a lecture at Cornell University, Mr. Walter M. McFarland, formerly an engineer officer in the United States Navy, said that to any engineer who went to sea in the old days when the working condition caused an immense formation of scale on the heating surfaces, the utter lack of truth in this statement ought to have been manifest, his own experience having shown that a considerable thickness of clean uniform scale made apparently little difference. On the United States ship Vandalia, for example, there were two boilers which were used only for distilling, under normal condition, and after a little experience these boilers were run alternately until scale had been accumulating for about three months, and yet it was found that the amount of water distilled for a given amount of coal burned was practically the same at the end of three months when the scale was nearly a quarter of an inch thick as when the heating surfaces were clean. It is, of course, true that under these circumstances the boilers were being worked at only a fraction of their full power. On one occasion, however, when there was a little discussion about this point, some one suggested a very simple test, and when one end of a piece of scale about eight or ten inches long from one of the tubes was held in the flame of a lamp it was found that the other end heated up with astonishing rapidity, thus showing that the statements which had been made about the non-conductivity had been greatly exaggerated.—Cassier's Magazine for August.

## VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY. Bushels.
Buffalo.....	2,000,000	722,000	149,000	.....	108,000
Chicago.....	10,613,000	3,530,000	1,592,000	302,000	.....
Detroit.....	182,000	233,000	4,000	6,000	1,000
Duluth.....	9,087,000	424,000	82,000	47,000	45,000
Fort William, Ont..	1,208,000	.....	.....	.....	.....
Milwaukee.....	966,000	130,000	122,000	1,000	11,000
Port Arthur, Ont....	66,000	.....	.....	.....	.....
Toledo.....	553,000	540,000	81,000	10,000	.....
Toronto.....	30,000	.....	6,000	.....	10,000
On Canals.....	42,000	662,000	194,000	.....	.....
On Lakes.....	635,000	2,251,000	748,000	.....	.....
On Miss. River.....	.....	.....	.....	.....	.....
Grand Total.....	46,354,000	11,692,000	5,693,000	557,000	518,000
Corresponding Date, 1899.....	36,019,000	11,646,000	3,794,000	587,000	532,000
Increase.....	723,000	.....	.....	.....	4,000
Decrease.....	.....	1,833,000	735,000	39,000	.....

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

## DOCK SPACE.

Justice Kenefick in Special Term on the Supreme Court has handed down a decision as to the right of vessels unloading at one dock to overlap adjoining docks. The question has never before been decided in the State of New York and is of great interest to vesselmen generally.

Justice Kenefick holds that whereas many of the docks owned on Buffalo water front are too short to accommodate modern lake vessels, it is within the right of the owners of the docks to permit vessels unloading or loading at them to overlap adjoining docks.

The matter was brought before the court in an action brought by David R. Morse and William B. Cutter, as guardian ad litem for Joanna Cutter Cheesman and Walter Livingston Hinman, infants, to restrain Albert J. Wheeler, Mary J. Wheeler, George Clinton Wheeler and Mabel Clinton Wheeler, defendants, from using the plaintiff's docks in any manner and from placing or mooring or permitting others to place or moor vessels alongside of such docks or any part thereof, and for damages. Adelbert Moot appeared for the plaintiffs and Spencer Clinton for the defendants.

Justice Kenefick dismissed the complaint with costs.

## DENIZENS OF THE DEEP SEA.

A government report by Prof. J. Browne Goode tells some curious facts about the denizens of the great ocean depths. In the introduction Prof. Goode says: "It seems probable that there are many inhabitants of the deep that are too swift, too wary, too cunning or too large to be taken. It cannot be doubted, for example, that somewhere in the sea, at an unknown distance below the surface, there are living certain fishlike animals unknown to science and of great size, which come occasionally to the surface and give foundation to such stories as those of the sea serpent."

Since deep sea dredging began more than 600 species of deep sea fishes have been discovered, all of a more or less wonderful nature; but it is very rare that large fishes are taken. The net on the bottom, dragged along by a wire three or four miles an hour, catches only the very sluggish forms; the large and active animals dart away and escape as the strange object comes bumping along over the bottom or plowing through the ooze. From time to time reports come of strange animals being seen at sea, and while these reports have generally been scouted as sailors' yarns, recent investigations show that they may be true. There are well authenticated cases where a creature known as the eel shark has been seen—a genuine sea serpent forty feet long or so. Another well-known, but rare marine monster is the ribbon fish, of about the same length, a beautiful creature with rich scarlet fins. Still another resident of the marine depths that occasionally strays to the surface is the giant squid, or devil fish. These creatures generally put in an appearance only when they have been injured in some way.

Nearly all the fishes so far found in the deep sea are, when taken from the water, found to be so loosely constructed and so porous that many drop apart, while the bones are mere tissues filled with mucus. Yet, though the fish is a literal sponge in the deep sea, it may be a ferocious creature, with strength to rend large and powerful animals. The large fishes of the abysmal depths are undoubtedly light givers, their bodies emitting a brilliant light by which they recognize each other in the trackless wastes.

## LAKE SUPERIOR IS COLD.

A young Englishman, who left town a fortnight ago to return to his native land after a six months' visit in America, took time before he went away to tell about some of the extraordinary things he had learned on his travels, and now that he is on the high seas, where he can't possibly read this, I am free to report to you a most important and singular fact he imparted to me concerning Lake Superior. A very learned man told it in Duluth. Here's what the Englishman told me the wise man told him:

"You know the water in Lake Superior is intensely cold," said he. "It's a most extraordinary thing, too, for it is many degrees colder than the water in any of the Great Lakes. It was most interesting to me to learn of the curious American custom that causes it. In winter, I was informed by a gentleman in Duluth, the ice freezes on Lake Superior to a depth of 20 or 25 feet—fancy! And the harvesting of the ice crop, he assures me, is the chief industry of the laboring classes. The ice is cut into immense blocks, that are so large it would be difficult to lift them, they are weighted with shot, attached by ropes to buoys, and sunk to the bottom of the lake. A most ingenious idea, isn't it? When they are needed they are floated to the surface, towed ashore and cut up. The whole bottom of the lake is quite paved with ice blocks, I am told. It's a most extraordinary thing, but one can't help seeing that that's why the water is very cold. It's really a lake of iced water, you know. I shall tell them at home that you Americans are so fond of iced water that you keep a whole lake of it in the states. Curious idea, isn't it? But, so cleverly American, you know."

And perhaps some day there'll be a book printed in England which shall let all the world know why Lake Superior is so very cold.—Washington Post.

IN the House of Commons on July 17, G. J. Goschen, First Lord of the Admiralty, defended the Belleville boilers, but he agreed to the appointment of a committee of practical engineers to examine the whole question. He referred with satisfaction to the new turbine principle of propulsion, and with regard to non-inflammable wood fittings said the recent experiments with the old turret ship Belleisle showed the present arrangement for flooding decks with water was most successful. Non-inflammable wood is being used on some new warships, though it was not quite satisfactory in some of its other properties.



### THE MARINE ENGINE, PAST, PRESENT AND FUTURE.

I recently took a trip on one of the Fall River steamers plying on Long Island Sound between New York and Fall River, Mass. Being always interested in machinery, and particularly in the steam engine, I embraced the opportunity to visit the engine room and see the immense beam engine which propels the vessel. It was an impressive sight to see the giant crank swing around in its circle with such ponderous force and to also watch the immense walking-beam oscillate in its trunions far overhead. The engine of this boat is a compound, the high and low pressure cylinders being connected to the same walking-beam. The stroke of the low pressure piston, which is connected to the outer end of the beam, is probably about ten feet, while that of the high pressure piston is somewhat less, as it is connected to the beam nearer the fulcrum. The immense A-frame made up of steel plates riveted together like the members of a bridge helped to complete the impression of great power and massiveness of design. But impressions and facts are sometimes different. Not long ago I was in the engine room of the largest ocean steamer afloat, the Oceanic, and there saw one set of engines which drive the twin-screws. They are triple-expansion engines and have four cylinders, the low pressure cylinder being divided into two on account of the great diameter necessary if it were concentrated in one, and also to get a more constant torsion effect on the shaft. Since the combined power of the propelling engines of this vessel is about 28,000 h. p., the power of this one engine was probably six or seven times that of the beam engine referred to, but it was not nearly as impressive in its general appearance. The short stroke, the connecting rods, the general compactness of the whole engine was in striking contrast to the old-timer, and what a difference in power per unit of space required. The beam engine monopolizes a large part of the most valuable space of the vessel and develops a low ratio of power as compared to the modern vertical tandem engine, thanks to high pressure, high piston speed and generally greater efficiency of the latter. It sometimes appears to me that while the pioneers in steam engineering are deserving of the fullest measure of praise for their work, they apparently tried to see how much metal could be used in an engine, seemingly being under the impression that massive construction and roundabout methods of transmitting motion increased the effectiveness of the machine in some mysterious way. Probably in the same way those who come after us will wonder why we persisted in building our engines and other machinery in such absurd forms, which nevertheless seem to us now to measure the height of perfection. The future designers will point to the much better and simpler methods which to them are so plainly evident, and which at that time will be incorporated in their general practice.—A. F. Canot in Steam Engineering.

### ALIEN LABOR LAW.

United States Labor Inspector Bailey is again getting in some of his fine work against Canadians. On the steamers St. Lawrence, New York and Empire State, of the "White Squadron," the majority of those employed were Canadians, and principally Kingstonians. Now the Labor Inspector has been sniffing around the river for the past month, and it was only last week that his "detective" instincts ferreted out the fact that there were Canadians employed on the above three steamers, which were United States vessels with headquarters at Kingston.

Accordingly he served notice on Folger Bros. to dismiss these men immediately, and threatening after ten days to fine the company five dollars for each Canadian employee remaining on their boats. Last week almost the entire crew of the Empire State was thus dismissed. Yesterday and today the steamers St. Lawrence and New York have suffered, several of the latter crew arriving in the city to-day. Folger Bros. disliked very much to dismiss the Canadians, but were forced to abide by the law. That they preferred Canadian labor will be seen by the fact that three-quarters of the crews of their eight steamers are Canucks. In all over twenty were dismissed.

So the Canadians continue to suffer from the "brotherly kindness" of their Yankee neighbors.—Kingston Whig.

THE present purchase of Pennsylvania soft coal for shipment to Cronstadt, on Russian account, is followed by the announcement that the British steamship Hotasu has been chartered to load 4,000 tons of the same cargo for Gutujewsky, Russia. It is thought probable that the coal is intended for railroad consumption.

### THE HEAVENS IN AUGUST.

Astronomical data for August, 1900, furnished the MARINE RECORD by the Washburn observatory:

Three of the bright planets are to be seen in the morning sky during the month of August. Of these, Mars, the ruddy planet, is high in the eastern sky in the last hours of the night, while Venus, the most brilliant of all the stars, is a little lower and farther south. The latter reaches its maximum brightness on August 14. Still lower will be found the inconspicuous morning star, Mercury, which will rise at about the same point of the horizon as Venus. Mercury reaches its greatest elongation west on August 19 and will be favorably situated for observation for a week preceding and a week following that date. The remaining two bright planets are seen in the evening sky, Jupiter low in the southwest and Saturn following. The latter passes the meridian in the middle or early evening, and at a low altitude, very nearly the same as that at which Jupiter passes the meridian two hours earlier.

The times of sunrise and sunset at Milwaukee for the month are as follows:

	SUNRISE.	SUNSET.
Aug. 1.....	4:42.....	7:13
Aug. 11.....	4:52.....	7:00
Aug. 21.....	5:03.....	6:45
Aug. 31.....	5:14.....	6:29

The times of the moon's phases are:

First quarter.....	Aug. 3, 10:46 a. m.
Full moon.....	Aug. 10, 3:30 p. m.
Third quarter.....	Aug. 17, 5:46 a. m.
New Moon.....	Aug. 24, 9:53 p. m.

The principal fixed stars visible during the month in the evening hours are: To the west, Arcturus, Antares. Near the meridian, Vega. To the east, Altair, the bright stars of the constellation Cassiopeia, of the Northern Cross, and lower down in the sky, of the Square of Pegasus.

### INSPECTING LIGHTS.

Commander J. C. Wilson, U. S. N., of the Eleventh Light-House district, has completed two trips of inspection of lights between Detroit and Point Iroquois. All the lights in the district have now been inspected.

The aids to navigation maintained by the Light-House Board in the Eleventh district are:

	Lake Huron.	Lake Superior.
Second order lights.....	1	1
Third order lights.....	4	5
Third and a half order lights.....	1	3
Fourth order lights.....	18	19
Fifth order lights.....	8	8
Sixth order lights.....	8	4
Lens lanterns.....	37	9
Tubular and other lanterns.....	53	50
Light vessels in position.....	3	0
Gas lighted buoys.....	22	0
Total lighted aids.....	155	99
Steam fog signals.....	13	18
Clockwork fog signals.....	1	4
Day beacons.....	0	1
Bell buoys.....	2	1
Other buoys.....	247	130
Total.....	263	154
Total number of aids, 671.		

### EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., New York, report the weekly situation on freights as follows:

The anticipation we expressed of a better freight market for grain shipments has been fully realized by advanced figures conceded for Cork f. o. tonnage, as well as on berth steamers. The Cork f. o. rate for August boats may now be quoted at 4s. bid, with very little response, however, on part of owners of the limited amount of open suitable vessels. Other trades are equally handicapped by the continued scarcity of prompt tonnage and freights are gaining strength in most directions, excepting only coal shipments, upon which the advance in freights acts adversely. Charters from the gulf ports have advanced to 20s. on the net basis for the later fall months' loading.

Our market for sail tonnage continues very quiet but equally firm, and rates are stiffening, although very little business has latterly been accomplished.

In order to prosecute the search for the bodies of his two daughters, who were drowned in the Idler disaster, Capt. Corrigan has had a scow built with circular plates of glass in the bottom. These windows have been made water-tight, so that as the boat is towed through the water it is possible to see the bottom of the lake for a considerable distance in all directions. That the search might reach to greater depth, the craft has been equipped with electric lighting apparatus so that lights can be used to illuminate the bottom of the lake.

### SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD).

**Freight.**—In a general average adjustment no deduction is to be made from freight charged against the cargo owner because the cargo has been subjected to particular average charges for salvage. The Eliza Lines, 102 Fed. Rep. (U. S.) 184.

**Admiralty Jurisdiction—Maritime Contracts.**—A clause of a charter party giving the charterer the agency of the ship in case she is in general average during the term of the charter creates a maritime contract, which may be enforced in a court of admiralty. The Ripon City, 102 Fed. Rep. (U. S.) 176.

**Shipping—Mutual Liens of Vessel and Cargo.**—The mutual lien between vessel and cargo, resulting from a contract of affreightment, exists, as against the ship, only in favor of the cargo itself, and does not extend to agreements in the charter party which do not relate to the cargo. The Ripon City, 102 Fed. Rep. (U. S.) 176.

**Lights Between Decks.**—It being the custom for stevedores, employed in loading a ship, to furnish their own lights, the master and crew were not negligent in not keeping the between-decks lighted, to enable the stevedore's gang to reach their sleeping hammock in safety. The Nikolai II, 102 Fed. Rep. (U. S.) 174.

**Shipping—Charges for Reloading.**—An item of general average charges, based on the estimated cost of reloading cargo discharged on account of injury to the vessel, is not properly allowable where, by reason of the fact that the voyage was not resumed, the expenditure was not actually made. The Eliza Lines, 102 Fed. Rep. (U. S.) 184.

**Ascertainment of Contributory Values.**—Although, under the circumstances of a case, salvage is a matter of particular averages against the vessel, cargo, and freight severally, yet where such average arose out of a peril which renders a general average necessary, they are to be deducted in ascertaining contributory values for the purpose of the general average. The Eliza Lines, 102 Fed. Rep. (U. S.) 184.

**Legality of Provision of Charter.**—A provision of a charter which would authorize the charterer, as the ship's agent, in case of her taking fire, to assume entire charge of her, and of the matter and means of extinguishing the fire, the unloading and reloading of cargo, and otherwise performing the duties which under the maritime law devolve on the master, is void, as against public policy. The Ripon City, 102 Fed. Rep. (U. S.) 176.

**Maritime Liens—Breach of Charter—Refusal to Permit Rendition of Services.**—Under the general maritime law, there is no lien upon a ship for damages resulting from a breach of a provision of a charter making the charterer the ship's agent for the adjustment of general average, and, in the absence of an express provision for a lien in the charter, a suit in rem cannot be maintained against the ship to recover such damages because of a refusal to permit the charterer to act as such agent. The Ripon City, 102 Fed. Rep. (U. S.) 176.

**General Average Adjustment.**—In computing contributory values for the purpose of a general average adjustment it is not necessary that they should be taken at the same time and place, but, according to the custom of Boston, the value of the vessel is obtained by taking her value at the port of refuge, and adding to it the benefit she received from the general average, while the value of the cargo is taken according to the place and time of its arrival at the port of destination. The Eliza Lines, 102 Fed. Rep. (U. S.) 184.

**Shipping—General Average—Rules for Adjustment.**—Although a court directs that contributions to general average be made on the basis of the completion of a voyage, interrupted without right by the charterers, it may also properly direct the adjustment to be made in accordance with the customs of the port where the voyage actually terminated, and where the adjustment is in fact made; the question of what custom shall be adopted being one of convenience, rather than of theory. The Eliza Lines, 102 Fed. Rep. (U. S.) 184.

**Shipping—Construction and Operation of Charter—Provision Making Charterer Ship's Agent.**—A charterer had no interest in the cargo, and his only interest in the voyage was in the excess of freight earned over the amount of the hire stipulated for in the charter. The charter contained a provision that, in case the ship was in general average, "the agency and the settlement thereof" should remain with the charterer or his agents. After the ship had loaded and started on her voyage she took fire, and returned to the port of sailing, where, the charterer not being at such port, and having no agent there, the master employed another agent, who took charge of saving the vessel and cargo, and continued to perform such services as were required on behalf of the vessel resulting from the disaster. Held, that the master was justified by the emergency in making such employment, and that he did not violate his duty in refusing to discharge such agent when the charterer appeared two days later, and demanded that the ship be placed in his charge, as the result of such action would have been to fasten double liens on the ship for one set of services. The Ripon City, 102 Fed. Rep. (U. S.) 176.





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regarded.

CLEVELAND, O., AUGUST 2, 1900.

## LAKE NAVAL HISTORY.

A report recently submitted to Congress in reference to the status of the agreement said to prohibit the building, arming or maintaining of more than a single war vessel on the Great Lakes, was furnished in response to a House resolution presented in January requesting the subject matter for the use of the Committee on Foreign Affairs. It embodies a full and interesting record of the agreement made between England and the United States relative to the construction and maintenance of war vessels on the lakes. The report goes back into the early history of the government of the United States and says that after the restoration of peace between the United States and Great Britain by the treaty of Ghent, in 1814, several dangerous sources of disagreement between the two countries were found to exist in the restless and even hostile spirit of the Indians on the frontier, and unneighborly conduct of British officers in Canada, and in the maintenance by Great Britain of an excessive armament on the Great Lakes. From the report it is noted that all these matters were the occasion of frequent instructions by Mr. Monroe, then Secretary of State, to Mr. John Quincy Adams, minister to London, looking to their adjustment by some treaty or conventional arrangement.

The first correspondence in the matter was made in 1815, when Mr. Adams, under date of August 29, transmitted to the Department of State some British newspapers in which it was announced that His Majesty's cabinet had determined, not only to maintain, but to augment its armed naval forces on the Great Lakes. Mr. Monroe's reply demonstrates that this government was the first to offer a proposal tending to limit the number of armed boats on the lakes. A copy of the letter follows:

(Mr. Monroe to Mr. Adams, Nov. 16, 1815.)

The information you give of orders having been issued by the British government to increase its naval force on the lakes is confirmed by intelligence from that quarter of measures having been actually adopted for the purpose. It is evident, if each party augments its force there, with a view to obtain the ascendancy over the other, that vast expense will be incurred and the danger of collision augmented in like degree. The president is sincerely desirous to prevent an evil which it is presumed is equally to be deprecated by both governments. He therefore authorizes you to propose to the British government such an arrangement respecting the naval force to be kept on the lakes by both governments as will demonstrate their pacific policy and secure their peace. He is willing to confine it, on each side, to a certain moderate number of armed vessels, and the smaller the number the more agreeable to him; or to abstain altogether from an armed force beyond that used for revenue. You will bring this subject under the consideration of the British government immediately after the receipt of this letter.

Mr. Adams conferred with Lord Castlereagh, and, in his reply to the State Department, said that the proposal he made conformably to instructions, he felt would not be ac-

cepted. From the various letters and papers it is seen that when the treaty of Ghent was being drafted, England proposed that all the waters and both shores of the lakes should be the property of one government, and naturally enough, their government. This was objected to by the United States, hence at this point England did not feel over-anxious to agree to the terms of the proposal.

Subsequent to this Mr. Adams sent a number of letters to Lord Castlereagh, and on March 30, 1816, he forwarded the following interesting letter to the State Department:

[Mr. Adams to Mr. Monroe, March 30, 1816.]

Lord Castlereagh has not yet replied to any other of my late notes. You may, however, consider it as certain that the proposal to disarm upon the lakes will not be accepted. In all the late debates in Parliament upon what they call their Military and Naval Peace Establishment the prospect of a new war with the United States has been distinctly held up by the Ministers and admitted by the Opposition as a solid reason for enormous and unparalleled expenditure and preparation in Canada and Nova Scotia. We hear nothing now about the five frigates and the bits of striped bunting. The strain is in a higher mood. Lord Castlereagh talks of the great and growing military power of the United States. The Marquis of Lansdowne, an Opposition leader and one of the loudest trumpeters for retrenchment and economy, still commends the Ministers for having been beaten into the policy of having a naval superiority upon the lakes. And one of the Lords of the Admiralty told the House of Commons last Monday, that bumboat expeditions and pinchback administrations would no longer do for Canada; that Englishmen must lay they account for fighting battles in fleets of three-deckers on the North American lakes. All this is upon the principle of preserving peace by being prepared for war. But it shows to demonstration what will be the fate of the proposal for disarming.

In those days of slow communication between the two countries, two months elapsed before a dispatch reached its destination. Mr. Monroe still anticipated favorable results despite Mr. Adams' forebodings of failure, and while thus expressing himself to the government representative, Lord Castlereagh had already acceded to the proposal and had instructed the British minister at Washington to arrange the details. It was then agreed that the naval force of the lakes should be as follows: On Lake Ontario one vessel, not exceeding 100 tons burden and armed with one 18-pound cannon. On the upper lakes, three like vessels, like armed.

Attention was next drawn to the matter in 1838 by the occurrence of disturbances in Canada and the apprehension of organized hostilities against the authority of the crown on the part of the so-called "Canadian Patriots."

Alarmed at their strength, the British government began to increase its naval force on the lakes. In the month of January, 1838, a considerable number of the Canadian Patriots gained possession of Navy Island (belonging to Canada), in the Niagara river, whence to make a descent upon the opposite Canadian shore. The British authorities hired two or three lake schooners and armed and manned them for the purpose of frustrating this threatened invasion. From reports it would seem that these vessels did not emerge into Lake Erie from the river while so armed and manned, but to have been discharged as soon as the danger, pertinent to this point, had passed away. From the report of Gen. Scott it is learned that after the burning of the British merchant steamer, Sir Robert Peel, on the St. Lawrence, in 1828, and up until the close of navigation in that year, the Canadian authorities employed several steamers and barges, all armed and manned, cruising about Lake Ontario, but principally in the St. Lawrence. Mr. Forsyth, then Secretary of State, invited the British minister, Mr. Fox, to a personal interview and called his attention to the violation of the conventional arrangements of 1817.

Subsequently Mr. Fox wrote the State Department that he had been informed by Her Majesty's authorities—Queen Victoria having succeeded to the throne—that "while they certainly do not apprehend any objection from the United States government, still, in order to prevent the possibility of misapprehension in any quarter, think it expedient to assure you that the armament is equipped for the sole purpose as above expressed, and will be discontinued at the earliest possible moment upon the cessation of danger." The note does not appear to have been answered by Mr. Forsyth or even acknowledged. In reference to the following season, Gen. Scott's report says that it was "a tranquil one," and he did not hear of a single armed vessel on Lake Erie. The Canadian patriots subsided in the following winter.

The matter came before the House of Representatives in 1841, in the shape of numerous resolutions embodied in the Fortification Act. It came to the attention of the State De-

partment that the British Government was constructing two boats of about 500 tons burden at Chippewa, and Daniel Webster, as Secretary of State, directed a note to Mr. Fox, calling his attention to the matter. To this note there was no reply, and two months later a more formal letter was sent, and Mr. Fox replied that "it was unfortunately notorious that Her Majesty's territory was threatened by attacks similar to those of 1838, and that the vessels were for defensive purposes solely."

The report does not show how this matter was settled, but the attention of the country was next called to the Great Lakes when the United States constructed the steamer Michigan, which is now an eyesore about the lakes. The Michigan was built in Pittsburgh and brought to Lake Erie in sections. She has a registered tonnage of 498 and is capable of carrying two 8-inch guns and 32 carronades, and was floated in the summer of 1844. This drew forth a remonstrance from the British Government.

Secretary Hay's letter, just delivered to the committee on Foreign Affairs, goes into the details of the matter and refers the committee to the Joint High Commission, whose work has been suspended without reaching a satisfactory result. The Government members of the United States were instructed that it was the sense of the country, or the Government so regarded it, that the construction of naval vessels on the Great Lakes for passage to the Atlantic coast was not hostile to the agreement of 1817. It has been shown that the ports on the lakes in a number of instances have the facilities for the construction of naval vessels which give them advantages over seacoast cities. It is the desire of the Committee on Foreign Affairs to regulate matters so that this work can be carried out, and while the Secretary of State concurs in the sentiment, and assures the committee that the Joint High Commission, he understood, had made some satisfactory progress, still their labors had been suspended without reaching a satisfactory result.

## OFFICERS OF THE AMERICAN SHIP BUILDING COMPANY.

At the annual meeting of the American Ship Building Co., which was held Wednesday, Messrs. Samuel Mather, of Cleveland, Colgate Hoyt, of New York, and Gilbert N. McMillan, of Detroit, retired from the board of directors and were succeeded by L. M. Bowers and John A. McGean, representing Rockefeller interests, and W. C. McMillan, of Detroit. Mr. Bowers was also elected to membership on the executive committee. The full list of officers is as follows:

Board of Directors—William L. Brown, H. H. Porter, Jr., Chicago; Robert Wallace, H. M. Hanna, Robert L. Ireland, L. M. Bowers, James C. Wallace, L. C. Hanna, Luther Allen, J. A. McGean, all of Cleveland; William E. Fitzgerald, Andrew M. Joys, Milwaukee; Alexander McVittie, W. C. McMillan, Detroit; W. F. Coleman Carpenter, Jersey City.

Executive Committee—Luther Allen, William E. Fitzgerald, Robert L. Ireland, William L. Brown, Alexander McVittie, James C. Wallace, L. M. Bowers.

Officers—William L. Brown, president; Robert L. Ireland, vice-president; Russell C. Wetmore, secretary and treasurer; James C. Wallace, general manager; William E. Fitzgerald, assistant general manager.

Transfer Agents—Corporation Trust Co., New York and Jersey City, N. J.

Registrar of Stock—Central Trust Co. of New York.

## LAUNCH OF THE STEAMER RENSSALAER.

A large crowd turned out to witness the launching of the big steamer Renssalaer at the old Globe yard, Cleveland, on Thursday afternoon last. The word was given on time and the big freighter went into the water on an even keel. The Renssalaer was christened by Miss Dorothy Hause, of Pittsburgh, daughter of William F. E. Hause, who is general superintendent of the Pittsburgh, Bessemer & Lake Erie Railway Co. Instead of breaking a bottle of wine on the bow of the vessel Miss Hause liberated several doves. The new boat is an exact duplicate of the steamer Harvard, which is also owned by the Pittsburgh Steamship Co. The Renssalaer is 474 feet over all, 454 feet keel, 50 feet beam and 28½ feet deep. She will have quadruple expansion engines; cylinders, 18, 26¼, 41 and 63 inches, with a common stroke of 4½ inches. She will have Babcock & Wilcox water tube boilers.

The new boat, which will be commanded by Capt. E. T. Ratray, will be completed and ready for business about September 1.



**EARLY NAVIGATION ON LAKE SUPERIOR.**

Capt. D. Atkins, of Buffalo, one of the pioneer navigators of Lake Superior and the first steamboat agent at Duluth, recently gave a very interesting account of early navigation on Lake Superior.

From 1870 to 1876, he was a resident of Duluth. In 1870, the Union Steamboat Co. extended its line from Portage Lake to Duluth, and the first boat to come up was the propeller Arctic, and on August 2 of that year it met the first train that came from St. Paul on the Lake Superior & Mississippi R. R., as the St. Paul & Duluth was then called.

Capt. Atkins, says: "I was agent of that boat, and on her was shipped the first barrel of flour and the first bushel of wheat that went from Duluth. The old breakwater elevator and dock were not finished. So they had to lay down loose boards in order to roll the flour into the boat, and then the wheat was taken in wheelbarrows and wheeled aboard the boat and dumped in, about 10,000 bushels. The wheat came from Ex-Governor Hubbard's mill at Red Wing.

"In 1870 I wrote to my home paper, the Buffalo Courier, predicting that in twenty years' time there would be more commerce going down Lake Superior than there would through the Straits of Mackinac from Chicago and Lake Michigan, and calling the attention of the merchants of Buffalo to that fact. The Chicago papers hooted at it. Well, now, it didn't take twenty years. The commerce or tonnage that goes down Ste. Marie river through the "Soo" was greater than through the Straits of Mackinac several years ago.

"J. B. Culver, George Barnum, William R. Stone, and the First National Bank inaugurated the original South Shore line of steamers by purchasing from Milwaukee the steamboat Metropolis. I was captain of the boat. It ran from here to Bayfield, Ashland, Ontonagon, Houghton, Hancock and Marquette and return. The railroad which took its place afterwards still retains the name of the South Shore.

"I don't think there is anyone now living, at least in active business connected with lake navigation, who explored this lake as early as I did. In 1844 I coasted the south shore of the lake in a batteau. There was a party with me looking for copper. We camped at Carp river, three miles above where Marquette now is, and at that time there wasn't a tree cut on the present site of that city. They grew solid down to the water's edge.

"In '46 I was one of the crew of the propeller Independence on her first trip up this lake. The canal was not built until nine years afterwards. This steamboat was hauled over the portage of "Soo" falls the winter of '45-6. Copper Harbor, Eagle Harbor and Ontonagon were the only ports then on this lake. In June of '46 we came around Whitefish Point at the lower end of the lake into Lake Superior.

"The schooner Algonquin sailed up here in 1847. John Halloran was the captain, and I was one of the crew, which consisted of two boys. The Algonquin—what's left of her—now lies under the water over at Old Superior.

"In 1857 I landed at the point where Duluth is now located from the steamer Lady Elgin, commanded by Capt. John Wilson. Among her passengers on the trip were the original owners of the town site of Superior City. Among them were John C. Breckinridge, subsequently vice president of the United States, and Senators Stephen A. Douglas and Jesse D. Bright of Illinois. We landed on a little log dock constructed for unloading provisions for the settlers. They had a shanty warehouse and there were several log houses scattered about in the forest that then invested the site of Duluth. J. B. Culver was then agent for the American Fur Co. at Fond du Lac. Among those to whom freight we landed was consigned were George and William Nettleton, Luke Marvin, Commodore Saxton and J. D. Ray. When I brought the steamboat Metropolis here from Lake Michigan June 9, 1873, there was an ice pack for 20 miles out into the lake from Duluth, so firm that it took me three days to work through it.

**NAPHTHA AND BENZINE BARRED.**

Supervising-Inspector General Dumont of the Steamboat Inspection Service has ruled that section 4472 of the Revised Statutes absolutely prohibits the carriage of naphtha, benzine, etc., under any circumstances, as either freight or stores on passenger steamers, which includes ferry steamers, and therefore prohibits the carriage of gasoline automobiles, when their tanks are supplied with gasoline. It is suggested however, that application be made to Congress for relief. The decision and suggestion are approved by the Secretary of the Treasury.

**ANOTHER REPORT OF THE G. L. S. S. CO.**

Two large steel steamers will be built during the next year to run from Chicago to Buffalo touching at Milwaukee, Mackinac Island, Detroit and Cleveland, and Gregory Hurson, of Milwaukee, announces that a company with a capital of \$2,000,000 is being organized to float the enterprise. There has been a tremendous demand for through passenger service between Chicago and Buffalo during the past five years, and Mr. Hurson thinks the new company will meet with unqualified success. The steamers will be built at Chicago and Detroit by the American Ship Building Co., and work will be begun on the big floating palaces next month. Each boat will be 470 feet long, or 100 feet longer than the North Land, and will cost about \$800,000 each, which will leave the Great Lakes Steamship Co. about \$200,000 for working capital.

"There will be nothing like them on fresh water," said Gregory Hurson, of Milwaukee, "and each steamer will have a carrying capacity of 900 passengers, in addition to 5,000 tons of package freight. It is the intention of the company, of which John Gordon is the president, to devote itself exclusively to carrying passengers between Chicago and Buffalo, during the passenger season, which opens June 15 and ends about September 15, while prior to that time and after the passenger business ends, will carry package freight and grain, which the Great Northern Co.'s boats are not built to handle, insuring a lucrative business. The new steamers will be able to attain a speed of about eighteen miles an hour, completing the trip from Chicago to Buffalo in about two days and a half, including all intermediate stops. Work on the boats will begin some time next month, and they should be completed when navigation opens next spring. The cost of the steamers was originally estimated at \$1,000,000 each, but the recent decline in steel reduces that estimate about \$200,000.

**LETTERS AT DETROIT MARINE POST OFFICE.**

August 1, 1900.

To get any of these letters, addressees or their authorized agents will apply at the general delivery window or write to the postmaster at Detroit, calling for "advertised" matter, giving the date of this list and paying one cent.

Advertised matter is previously held one week awaiting delivery. It is held two weeks before it goes to the Dead Letter Office at Washington, D. C.

Bashaw, Oliver  
Butler, Henry G., Uvira  
Bryant, Wm.  
Baluvelt, Mark, Grecian  
Braund, S. N.  
Braddon, Jno. 2, Vega  
Cole, W. E.  
Conway, Richard, Griffin  
Calvin, Leslie  
Carlson, A. M., Helena  
Conklin, Wm., Maryland  
Carlson, Math, Helena  
Cradit, Fred, Marinette  
Curtiss, E., 5  
Cline, Johnnie  
Chambers, Mrs., Neshoto  
Chartier, Ben, Paris  
Camm, W. H.  
Clements, Harvey R., Tempest  
Cahill, M. J., Wetmore  
Conger, Omar, Black  
Duane, Rube  
Davidson, Wm., E. C. Hutchinson  
Dyer, Hugh  
Duncanson, Joseph  
Edwards, Perry H.  
Eklund, Charles, Bielman  
Ellis, A. R.  
Ferguson, Duncan, J. B.  
Ketchum  
Fisher, Horace  
Grimm, Fred. A., Iroquois  
Green, Mrs. W. H., Gettysburg  
Groff, Henry  
Henning, Mrs. Wm., Volunteer  
Hobbs, Clement  
Holden, Miss Mina  
Hope, Joseph  
Hulme, Capt. Wm.  
Hall, J. H.  
Henry, Geo. H., Bradley

Irwin, Wm. C., Merida  
Johnson, Thos. A.  
Jenner, George  
Kemmis, Charles, Paisley  
Klinger, Charles, Vega  
Kamsool, Ed.  
Kelbey, Lizzie  
Kirtley, J. H.  
Larsen, Dann, Hennepin  
Luxton, John  
Lecuyer, Albert  
Munroe, Donald, America  
Manning, E. A., 2, Maryland  
Mander, George  
Morris, A. W.  
Mahony, Frank, Lackawanna  
McFarlane, Michael, Omaha  
McLaughlin, Harry  
McLeod, Alex.  
McCloud, ———, Helena  
McCarron, John, W. D. Rees  
McDonald, John, M. T. Green  
McCombs, Thos., J. Owen  
McCormick, John, Morse  
Olander, Victor, W. D. Rees  
Peterson, Henry, Merrimac  
Randals, W. J., Wand  
Robertson, Wm., Albany  
Ryan, Dan'l J., R. Fulton  
Rock, Willson  
Rice, Mrs. H. R.  
Reid, J. W.  
Saunders, C. V., Orinoko  
Shewitzbyhee, ———  
Sanker, Phillip, A. P. Wright  
Taylor, George, Wand  
Thompson, Samuel, Uvira  
Taylor, Neil, Pittsburg  
Thurston, Samuel, Lewiston  
Twomey, Barth  
Tardif, Joseph, Granada  
Wineland, John  
Wischman, Aug., Presque Isle

Now that Japan, which but a few years ago was in its government and institutions a pure Asiatic power, is co-operating with the civilized nations of the West in their effort to re-establish order in China, it becomes specially interesting to learn how the Japanese people regard the Chinese crisis.

This information is furnished in an able article which has been written by a Japanese diplomat for the August number of the North American Review. The writer does not take a light view of the task before the Powers: "If we seriously consider the extreme difficulty with which the Powers are at present confronted, and also the inconceivable sacrifice of blood and treasure that might possibly be required to carry out the proposed partition of China, even the strongest Power in the world shrinks from inaugurating the daring policy of the dismemberment of that immense empire. Even after the continuous victories of the Japanese army in the recent war with China, they would never have dared to enter Peking unless they were 100,000 strong. This single instance will suffice to show the difficulty of confronting a determined foe. When the whole population of China, deeply imbued with the utmost hatred of foreigners, once stood determined to uphold the country against foreign aggression, even the largest available forces that the Powers might bring together would hardly be able to cope with the crisis."

**SHIPPING SAILORS.**

Reports of United States shipping commissioners for the year ended June 30, 1900, rendered to the Bureau of Navigation show 142,832 shipments, discharges and reshipments of seamen on American vessels at those offices compared with 122,468 for the previous fiscal year. The expenses have been \$55,431 compared with \$53,651, the average services per man cost 39 cents, the lowest in the past seven years. Besides duties enumerated the commissioners at various ports have assisted without pay in the shipment of crews for army transports. There are now twenty commissioners' offices, the office at Mobile having been re-established and an office established at Honolulu on June 14. Shipments, discharges and reshipments at New York were 48,469 compared with 35,627 for the previous year. Boston and Port Townsend show considerable increases. Shipments and reshipments aggregate 90,325, divided by nationality into Americans, 32,333; British, 18,480; Scandinavians, 16,735; Germans, 8,449; Italians, 1,186; French, 635; other nationalities, 12,506. These figures include in many instances repeated shipments of the same men. The percentage of Americans is 35, compared with 36 the previous year, mail steamships raising the American average. The number of Scandinavians is practically unchanged, the increase being in German and British subjects. Shipments and reshipments on steam vessels numbered 47,409 and on sail vessels 42,916.

**NOTICE TO MARINERS.**

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—WISCONSIN.

TREASURY DEPARTMENT,  
OFFICE OF THE LIGHT-HOUSE BOARD,  
WASHINGTON, D. C., July 28, 1900.

STURGEON BAY CANAL LIGHT STATION.

Notice is hereby given that the color of the tower at this station, on the northerly side of the entrance to Sturgeon Bay Canal, westerly side of Lake Michigan, will be changed from brown to white.

The change in color will be commenced about July 30 and will be completed on or about August 22, 1900. The lantern will remain black.

By order of the Light-House Board.

FRANCIS J. HIGGINSON,  
Rear Admiral, U. S. N., Chairman.

LIGHT-HOUSE ESTABLISHMENT,  
OFFICE OF THE LIGHT-HOUSE INSPECTOR, 11TH DISTRICT,  
DETROIT, MICH., July 27th, 1900.

Information has been received that the Major's Shoal Buoy, (red and black horizontal stripes, 2nd class can) in the Straits of Mackinac, between Mackinac City and Round Island, Mich., has been carried away from its position.

It will be replaced as soon as practicable and in the meantime this shoal will not be buoyed.

By order of the Light-House Board:

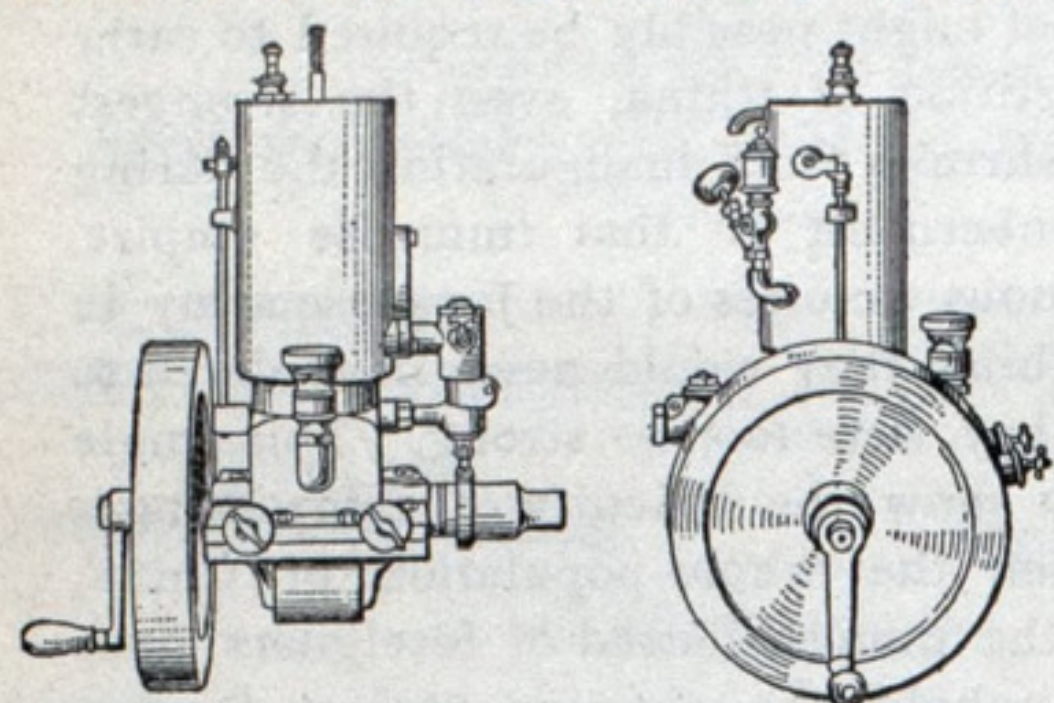
J. C. WILSON,  
Commander, U. S. Navy, Inspector 11th Light-House Dist.

Admiralty—Negligence—Personal Injury—Evidence.—Libellant, who was one of the stevedore's gang employed in loading a vessel, while attempting at night to walk a beam that led to a wing between decks, where his hammock was swung, fell to the hold below, and was injured. On the question whether the master and crew were negligent in not having the between-decks properly lighted, the testimony was conflicting; libellant and others testifying that it was perfectly dark, or that the lamps were turned down so low that one could not see to walk the beam in question, while, on the other hand, it appeared that one of the gang was reading a newspaper 10 or 15 feet from the place where the libellant fell. Held, that the negligence of the master and crew was not established. The Nikolai II, 102 Fed. Rep. (U. S.) 174.



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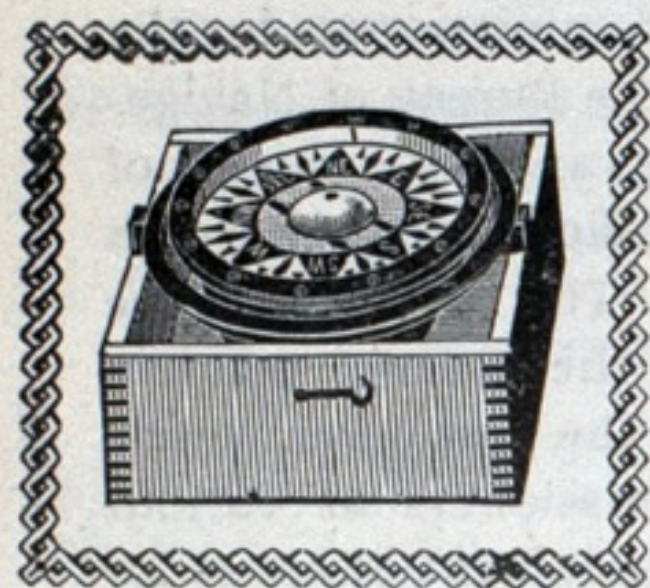
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by ship chandlers generally.

### LAKE SUPERIOR HARBORS.

The annual report of Maj. Sears, Corps of Engineers, U. S. A., in charge of the conservancy and improvements in rivers and harbors on Lake Superior, is made public this week by the War Department. The report states that the improvement of the Grand Marais, Minn., harbor commenced in 1880, and at the present time the length of completed breakwater is 350 feet, or one-half of the whole, and the 16-foot anchorage is 26 acres in extent, the full capacity of the harbor being 61 acres. The report also adds that the work is to be finished December 1, 1900, and as the dredging has been completed according to the original project, for the completion of the breakwater, a balance of \$1,249.34 is available.

Work on the waterway from Keweenaw Bay to Lake Superior, Michigan, resulted in the removal of 346,000 cubic yards. This dredging has resulted in giving a very fair 20 foot channel, 120 feet wide, into Portage Lake through Portage river. Many feet of revetment was constructed and the old revetment was removed. Over \$287,000 was spent during the year. The uncompleted contracts are covered by \$410,146.02, leaving no balance to July, 1900.

Since the last annual report as to the work at Marquette, 500 feet of extension to the concrete superstructure, to the breakwater, began in May, 1899, has been completed. Over \$21,000 was expended and a balance of \$1,066.57 is available. Work was also done on 500 feet extension to the breakwater in the harbor of refuge at Marquette, \$11,626.13 being expended. The uncompleted contracts are covered by \$17,280, leaving a balance of \$1,514.36.

Repairs and extensions to piers characterized the year's work at the harbor of refuge at Grand Marais, Mich., \$19,494.02 being expended. The uncompleted contracts are covered by \$14,470, leaving an available balance of \$790.73 to July 1, 1900.

In reference to the harbor at Agate Bay (Two Harbors), the report states that 130 feet of running embankment was completed on June 30, 1900, and the contract for the crib foundation and timber superstructure pier extensions has been awarded and the work is to be completed by September 1, 1901. This work is under way, and when it is finished the project for the improvement of the harbor will be completed.

Dredging constituted the bulk of the work of improving the harbor at Duluth and Superior. Altogether 4,920,388 cubic yards of material was removed. The new south pier of the Duluth ship canal was completed on April 17, 1900, seventeen cribs for the north pier were completed, piling driven and sawed off; six cribs have been sunk and secured, and four of the six have been decked over ready for concrete footing blocks. There was expended during the fiscal year \$635,974.30. Uncompleted contracts are covered by \$1,363,282.34, leaving no available balance July 1, 1900.

Considerable work was done on the breakwater in the harbor at Ashland during the year, \$11,016.52 being expended. The amount covering uncompleted contracts is \$22,000, leaving an available balance of \$3,747.69.

### LAUNCH OF THE PRINCETON.

The large steel steamer Princeton, built to the order of the Pittsburg Steamship Co., was successfully launched on Saturday last from the Lorain yards of the American Ship Building Co. Thousands of people witnessed the vessel slide from the ways into the waters of Black river. Every available spot for sight-seeing was occupied, and with the launching came a deafening shrieking of whistles. The steamer was launched under the personal supervision of Supt. W. W. Watterson, and as she started down the ways, Miss Katherine Reed, of Pittsburg, daughter of J. H. Reed, liberated six pigeons from a cage. Two of the birds circled about a moment and started off for the east after one of them had touched its feet to the pilot house of the Princeton. Two of the birds fluttered about and landed on the staging. One of the birds remained in the cage and the sixth one, having left its companions, flew to the ways.

The large launching party took great pleasure in witnessing the launch of the sixth and last of the fleet being built for the Carnegie Co., or the line known as the Pittsburg Steamship Co.

Amongst those present were Judge J. H. Reed, father of the young lady who christened the boat, his wife and sons, D. A. and J. H. Reed Jr.; C. H. Jones, W. M. Robinson, J. F. Guffey, T. F. Wilcox, E. H. Utley, Misses Spencer, McBeth, Aikens, Utley, Kirtland and Briggs of Pittsburg, also E. S. Mills, General Manager of the Carnegie Co., James Gatley, V. Pres., D. G. Kerr, Asst. Treas., Pres. Woodford, of the C. L. & W., R. L. Ireland, V. Pres. of the American Ship Building Co. and Capt. Rae, who is to sail the boat.

The Princeton bore on her masts the American flag, the colors of the college after which she is named and the flags of many nations.

A part of the visiting company were Princeton graduates and after the launching they gave their college yell which was followed by others for Pennsylvania.

It was the expectation to let loose some carrier pigeons obtained in Cleveland but the party failed to find any trained birds there and doves were used instead.

A WATCHMAN whose name is not known was drowned in the river at Ashtabula, on Sunday, while in bathing. He was employed on the steamer V. H. Ketchum, and with the rest of the crew was in swimming in the river. He dived from the rail of the ship but did not come up. The life savers were summoned and recovered the body, which was found stuck fast in the mud, head downward.

### NOTES.

THE Rutland liner Haskell and the British steamer Monks-haven collided in the Welland canal on Monday but not much damage was done.

MR. E. PLATT STRATTON, chief engineer surveyor to the American Bureau of Shipping, has returned home from Europe and intends visiting the lake ports at an early date.

At the next session of Congress a bill will be advanced for the immediate enlargement of the Weitzel lock at the "Soo." When the new Poe lock was completed it was thought no more improvements would be necessary for 100 years, but the increase in navigation has created a demand already for greater accommodations for locking boats.

THE British torpedo boat Viper had an unofficial trial on July 16. Her engineers are on strike, and she was handled by a scratch crew made up chiefly of apprentices. The trial was made under full steam for an hour, and she made six runs over a measured mile. The first run was made at the rate of 36.585 knots, the second at 35.503, the third at 37.113 or 43 miles an hour; the fourth at the same speed, the fifth at 36.586 knots and the sixth at 36.072. Just before the last run she covered over 36½ knots for half an hour. For her mean of the two best runs, with and against the tide, she recorded 36.849 knots. For the Admiralty mean of the six runs the record was 36.581 knots.

THE Deutschland, the new Hamburg-American steamship, made an average for her maiden voyage of 22.42 knots as against 22.63 of the Bremen steamer Kaiser Wilhelm. The Deutschland's known power is expected to carry her into the lead before long. The two greatest passenger ships in the world are German and German-built, and a third, superior to either of them, and German-built also, is in sight. The engines of the Deutschland are of the six-cylinder, four crank, quadruple expansion type, with the two high-pressure and the two low-pressure cylinders tandem in the center and the two intermediate pressure cylinders at the ends. Each engine gives 16,500 I. H. P. Each crank shaft is hollow, in four sections, of the built-up type with counter-balances on the I. P. cranks. They are of nickel steel; length 59 ft. 3¾ in. outside diameter, 75.2 in., length of throw 36.42 in., weight (22,330 lbs.) close to 100 tons. Nickel steel is also used for the propeller shaft, and the intermediate shafting is of Siemens-Martin steel. There are twelve double ended and four single ended Scotch boilers in the vessel, contained in four separate boiler compartments. The double ended boilers are 16.16 ft. diameter and 20 feet long, and the diameter of each furnace is 3.6 ft. The boilers are constructed to withstand a working pressure of 225 lb. per sq. in. The total number of fires is 112, grate surface, 2,188 sq. ft.; heating surface, 85,465 sq. ft. Howden draft is fitted.



**WRECK AND CASUALTY REPORT FROM JUNE 16 TO JULY 15, 1900, INCLUSIVE.**

Twenty-five casualties were reported entailing damage to the amount of \$20,900 and the loss of 15 lives; 9 lives and \$17,000 of property were due to the gale of July 6 and 7. Fog is reported to be responsible for the loss or damage of \$3,900 worth of property, according to the meteorological chart for August published by the Weather Bureau.

In addition to the items following there were many minor accidents during the period of which no record is made:

May 30.—Steamer H. C. Frick stranded 6 miles west of Whitefish Point. Released next day. Not seriously damaged. Estimated damage, \$500.

June 11.—Steamer City of Rome and schooner Vienna collided during dense fog, 4 miles northwest of Thunder Bay Island, Lake Huron. The City of Rome was uninjured. The Vienna had her sails carried away and bow stove in; 4 feet of water in hold. The City of Rome towed the Vienna to anchorage, then proceeded on her way. Damage to Vienna, \$500.

June 23.—Steamer Nyanza went hard aground abreast of Point Abino, Lake Erie. Damage, \$5,000.

June 27.—Steamer Empire State ran ashore, during the night, at a point 8 miles south of Little Sturgeon, or abreast of what is known as Sugar Creek (Sturgeon Bay), Lake Michigan. Released June 30. Damage to hull, \$2,000; cargo, \$2,500.

June 27.—Steamer Iron King, stranded at Whitefish Point, Lake Superior. Released June 28. Damage, \$2,500.

June 28.—Steamer Maryland stranded at Whitefish Point, Lake Superior, during heavy weather. She released herself. Damage, \$1,000.

June 29.—Schooner Picton foundered in Lake Ontario during gale, all hands lost, consisting of Captain Sibley, son and four others in crew. Loss, \$1,200. Total loss.

July 1.—Steamer John Craig stranded during fog and smoke, opposite Chequamegon lighthouse. Released next day. Estimated damage, \$500.

July 4.—Pleasure passenger steamer Idlewild grounded at Big Point Sable, St. Clair Flats, during heavy fog. Released July 6. Damage, \$1,000.

July 4.—Steamer Riverside grounded at Grand Island, Niagara river, during dense fog in river. Released same day. Damage, \$500.

July 5.—Steamer Gladstone ran aground at Toledo. Released July 7. Damage, \$500.

July 6.—Steamer Merida grounded at Toledo during gale. Damage, \$250.

July 6.—Steamer Fritz dragged anchor and drifted against a pier in Cleveland harbor during the gale. Damage, \$500.

July 6.—Schooner Sardinia foundered in Hedgehog harbor, Lake Michigan, during gale. Damage, \$500. Reported total loss.

July 6.—Tug Marion Teller sprang a leak and foundered during gale on Lake St. Clair. Three of crew drowned. Damage, \$1,500. Will probably be raised.

July 6.—Schooner John C. Bauer stranded at South Fox Island during gale and fog. Total loss. Estimated value of vessel, \$3,000.

July 7.—Schooner George Boyce stranded at Bois Blanc Island, Lake Huron, during the gale. Released next day. Damage, \$4,000.

July 7.—Schooners Simmons and Monitor were in collision off Sutton Bay, Lake Michigan, during the gale. Damage to each, \$250.

July 7.—Schooner Mary E. Packard caught in gale off Manitowoc, Lake Michigan. Damage, \$500.

July 7.—Barge Racine, while off Sand Beach, Lake Huron, was caught in gale. Damage, \$500.

July 7.—The pleasure schooner Idler, when 6 miles off Cleveland harbor, was capsized in heavy squall and sunk. Six lives lost. Damage, \$2,500.

July 7.—Schooner Henry J. Johnson, when in a gale on Lake Erie, had deck house, etc., damaged, amount, \$500.

July 8.—Excursion steamer Pearl stranded during gale when at or near Crystal Beach, Lake Erie. Released same day. Damage, \$1,000.

July 8.—Steamer Ida stranded on Kelleys Island, Lake Erie, during gale. Released next day. Damage, \$1,000.

June 11.—The James Parker went on the South Manitou island during dense fog. The vessel is a wreck. Estimated value not given.

**LITERARY AND BOOK NOTICE.**

Meteorology, or the science which treats of the air and its phenomena, has received due attention from those who navigate the ocean. It is a study which may be carried on to an indefinite degree, and the lessons to be learned by the comparison of notes and experiences are of the utmost value. The up-to-date commander studies the weather conditions in the light of former observations, and is enabled to make safe and quick voyages. Fortunate is he who has constant access to the valuable pilot charts issued by the United States Hydrographic Office, the information contained in these being of the greatest possible benefit. Speaking of this special kind of work in this country the author of "A Manual of Marine Meteorology," Mr. William Allingham, says, in the preface to his new book: "It would be difficult, if not impossible, to improve upon either the matter or the manner of these American aids to safe and rapid navigation." In the book just issued there are nearly 200 pages of information on this subject, the study of which would well repay any master or seaman. Mr. Allingham explains the instruments in use at sea for the purpose of taking meteorological observations. The author, after giving the reader the main facts of the work, passes on to consider the subject from another standpoint than that which strictly belongs to it. In this way, he says, the horizon is extended, and the student is perhaps led to become an observer of meteorology, physiography and natural history. Such a study includes a knowledge of atmospheric pressure, the temperature of the air and of the sea, the salinity of the oceans, the winds, the law of storms, hurricane seasons and tracks, ocean currents, icebergs, weather charts, phenomena due to moisture, and electrical indications. These are all dealt with in this book in a popular, and yet thorough and trustworthy way, without requiring from the reader any considerable technical or mathematical knowledge. Although written by an Englishman, the author dedicates the book to a well-known naval man in this country. The dedication page bears the following: "This little volume is dedicated to my friend, Commander Richardson Clover, U. S. Navy, who, during his term of office as United States hydrographer, did very much to make marine meteorology popular among navigators of every nation." The book is one of the greatest value, and should be in the hands of every ship master.

It is widely heralded that general manager Crapo, of the Pere Marquette road, was in Cleveland recently and it is stated that arrangements were then completed and the contract closed with the American Ship Building Co. to build for that road a ferry for use on Lake Michigan, to be the fastest in the world and furnished with palatial accommodations for a limited number of passengers. The ferry will carry several more cars than the Pere Marquette now in use and while it will be built upon much the same general plans, the road has profited by experience and will make several changes in the construction of the new boat. The new steamer will cost \$400,000, or about \$50,000 more than the Pere Marquette, and nothing will be spared to make her the finest boat of her kind in the world. This story reads all right but I can't find that any order has yet been placed, although, the plans for such a boat has been in the air for over a year.

**REPORTED BY THE LOOKOUT.**

The Simon J. Murphy carried this week 247,000 bushels of wheat.

On her first trip the Edenborn carried 7,100 tons of ore into Ashtabula.

Immense quantities of half grown fish are floating on the surface of Lake Erie near the mouth of the Detroit river.

Frank Macomb, first mate on the three-masted schooner Maumee Valley, was drowned at Kelley's Island last Tuesday night. It is surmised that he was asleep standing and was pitched overboard when the vessel lurched.

The schooner Howland, which sank off Windmill Point this spring, and which was raised and repaired, left Buffalo, Friday, for Cheboygan, in tow of the steamer Britannic. Capt. Jacob Jacobson, her old master, is still in command.

A suit was decided in Buffalo a day or two ago which declared that one vessel at a dock may overlap another dock. The question of compensation, however, was not decided, the court saying that it should be raised in other than injunction proceedings.

When the Rutland liner Haskell arrived at Ogdensburg, Friday last, her master reported a collision in the Welland canal with the British steamer Monkshaven. The foreigner found it difficult to steer in the narrow canal and both boats came together. The damage done was not heavy on either side.

Lorain wants a life-saving station. She now depends on the Cleveland crew, which has all it can attend to at home without having to look after Lorain as well. It is a four hours' trip from Cleveland to Lorain and back with a tug, and Cleveland is left unprotected for that time whenever the crew goes to Lorain.

The government officials are making it lively for vessels that carry passengers without a license. Of late tugs have been tied up to the dock and fined the full \$500, a number of them having been caught. Steamers are also being watched closely to see that they do not violate the law. This is making the tug men and the vessel masters cautious. Tugs have been in the habit of carrying men back and forth and not asking anything for it. Big steamers, too, have been carrying passengers up the lakes as the guests of the owners. All of this is set down as in open violation of the statutes governing such a case, and is the subject of a fine, which the officers of the government are now trying to make the owners pay when a violation occurs.

A curiosity in this bay Thursday was the Lu Lu G., one of the old-time stern-paddle Mississippi river steamers. She came from New Orleans, which port she left June 4th, coming up the Mississippi to the Wisconsin river through the canal at Portage, thence to Lake Winnebago and up the Fox river to Green Bay. She will go to Chicago and pass down the Illinois and Desplaines rivers to the Mississippi and back to New Orleans, which place she expects to reach about the middle of September. The craft is in command of Capt. O. E. Hogobum, an experienced coast and lake pilot, and on board is G. W. Wicks her owner, who is likewise interested in marine property quite extensively on the Gulf. The object of the trip was pleasure, experiment and business combined, Mr. Wicks being engaged in selling patent rights en route. As the craft draws but 14 inches of water she is well suited for the purpose of navigating the rivers through which she was obliged to pass, as Capt. Hogobum states that the water at some points was extremely low. He says the trip has been an enjoyable one, the scenery along the route being very interesting, and the cities, towns and farms looking prosperous all the way up. The boat laid in port over night continuing on her way south this (Friday) morning.—The Advocate, Sturgeon Bay, Wis.

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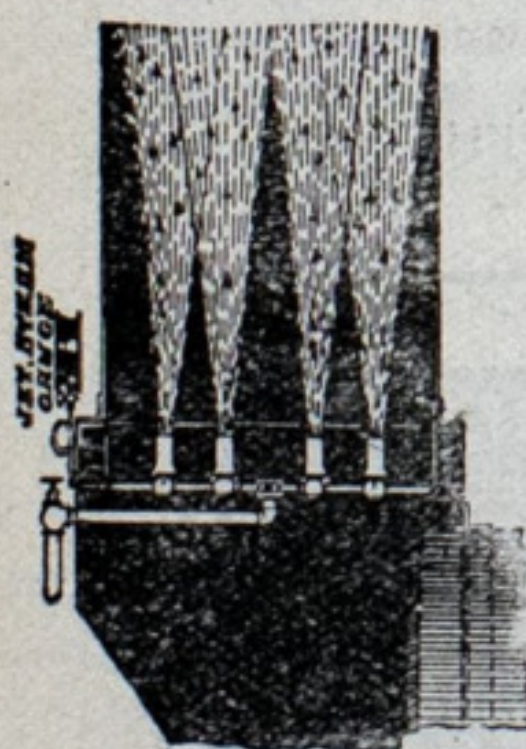
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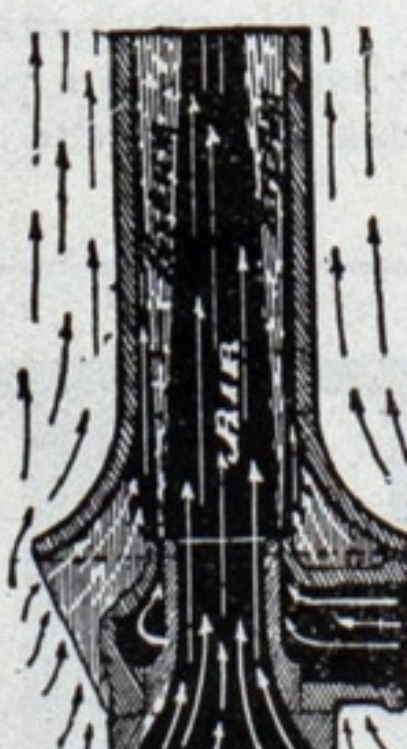
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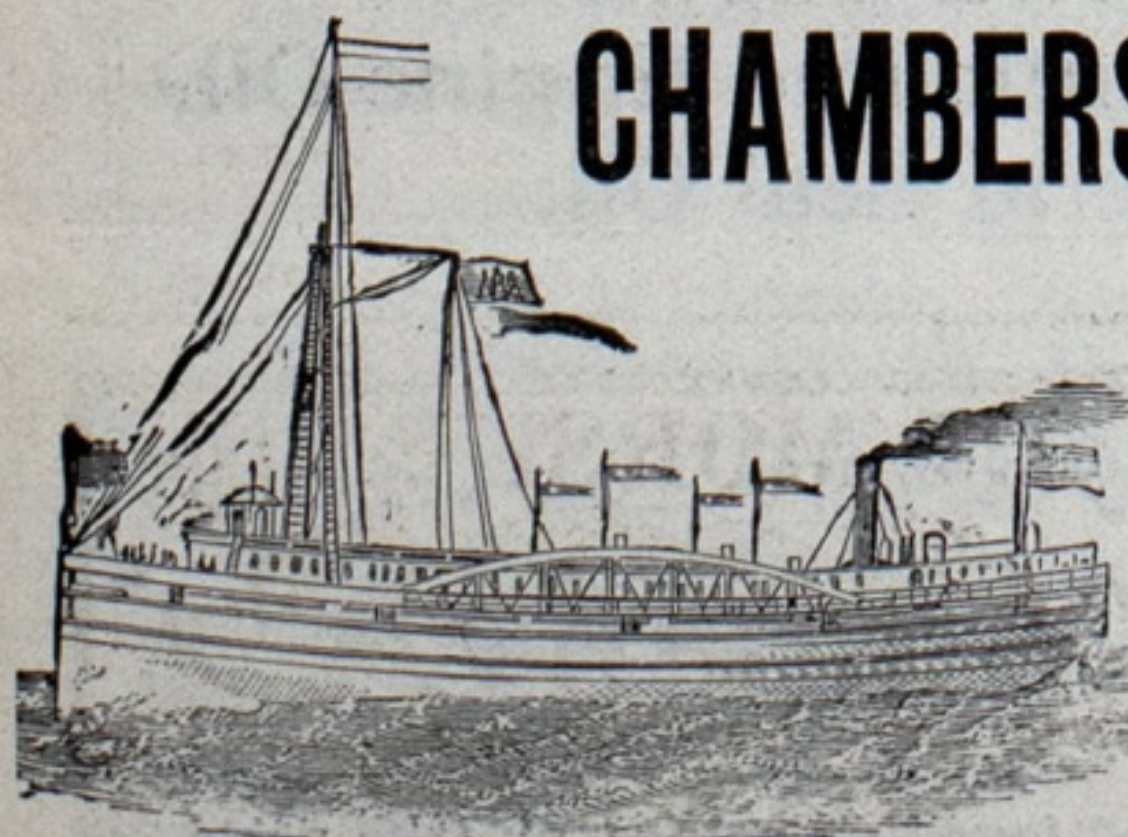
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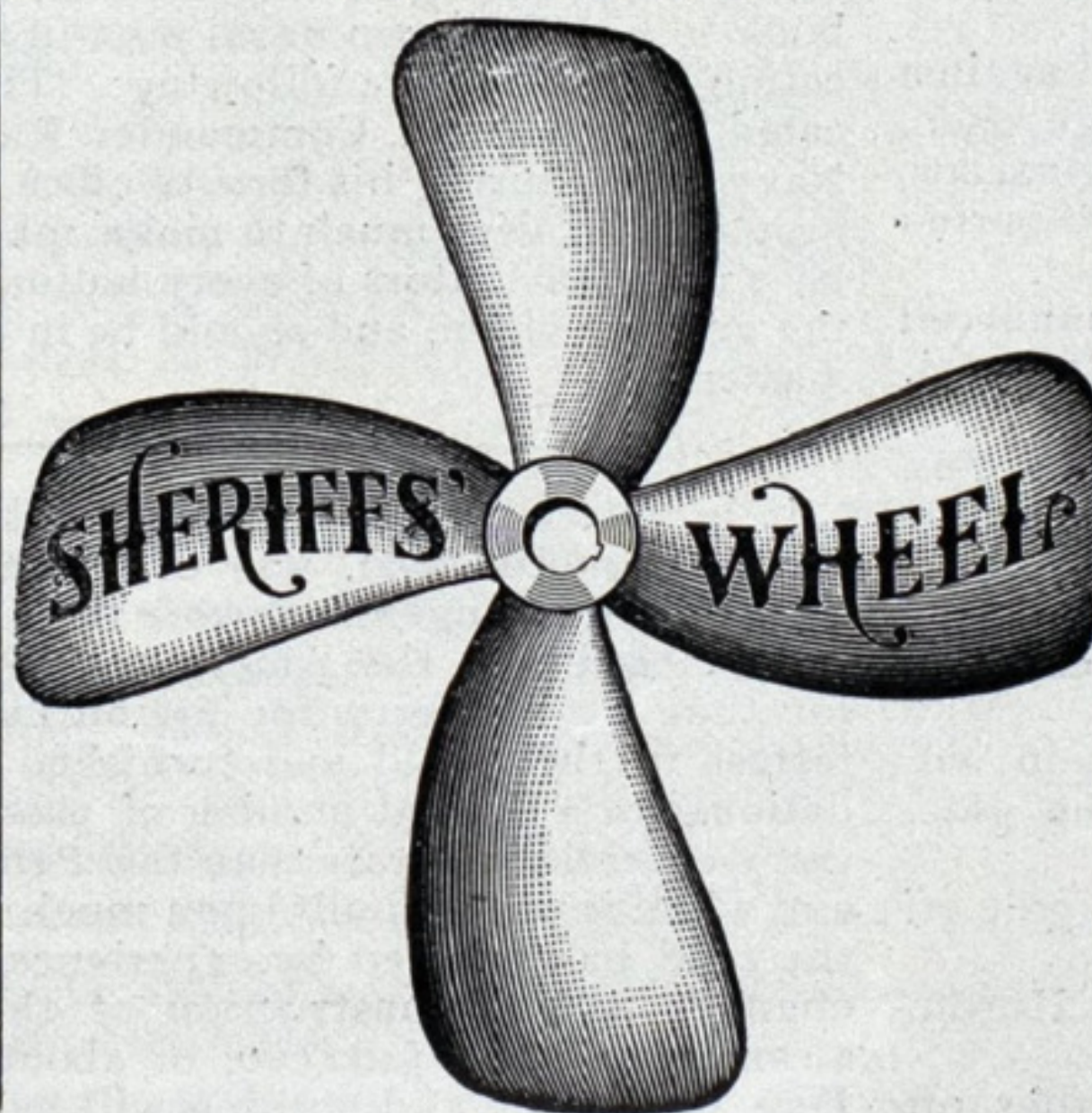
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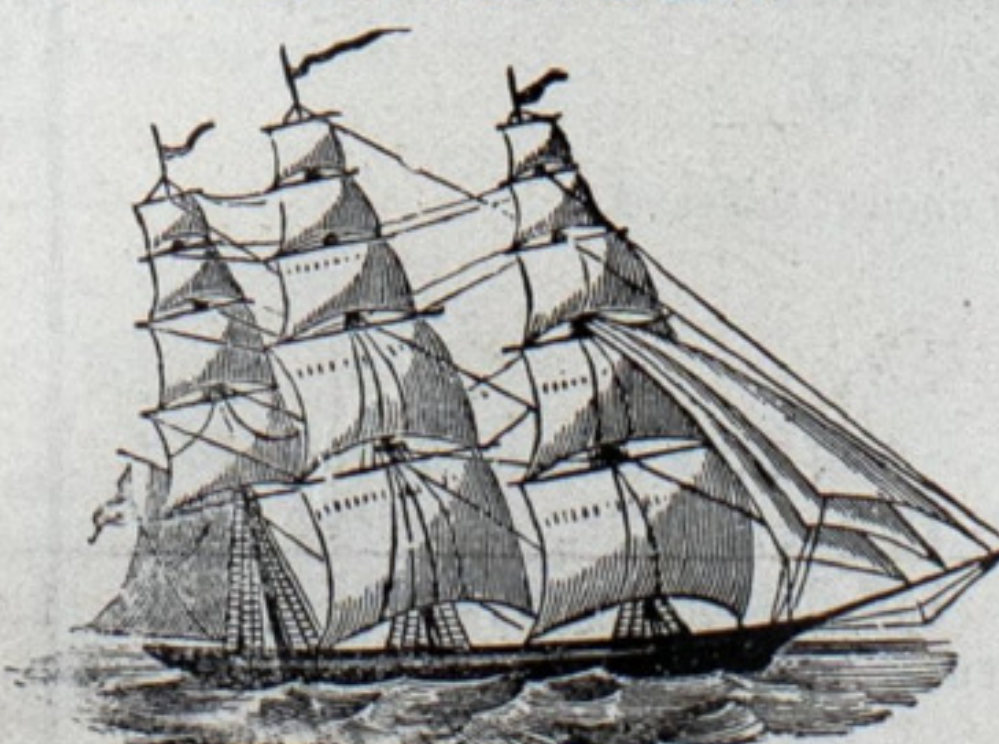
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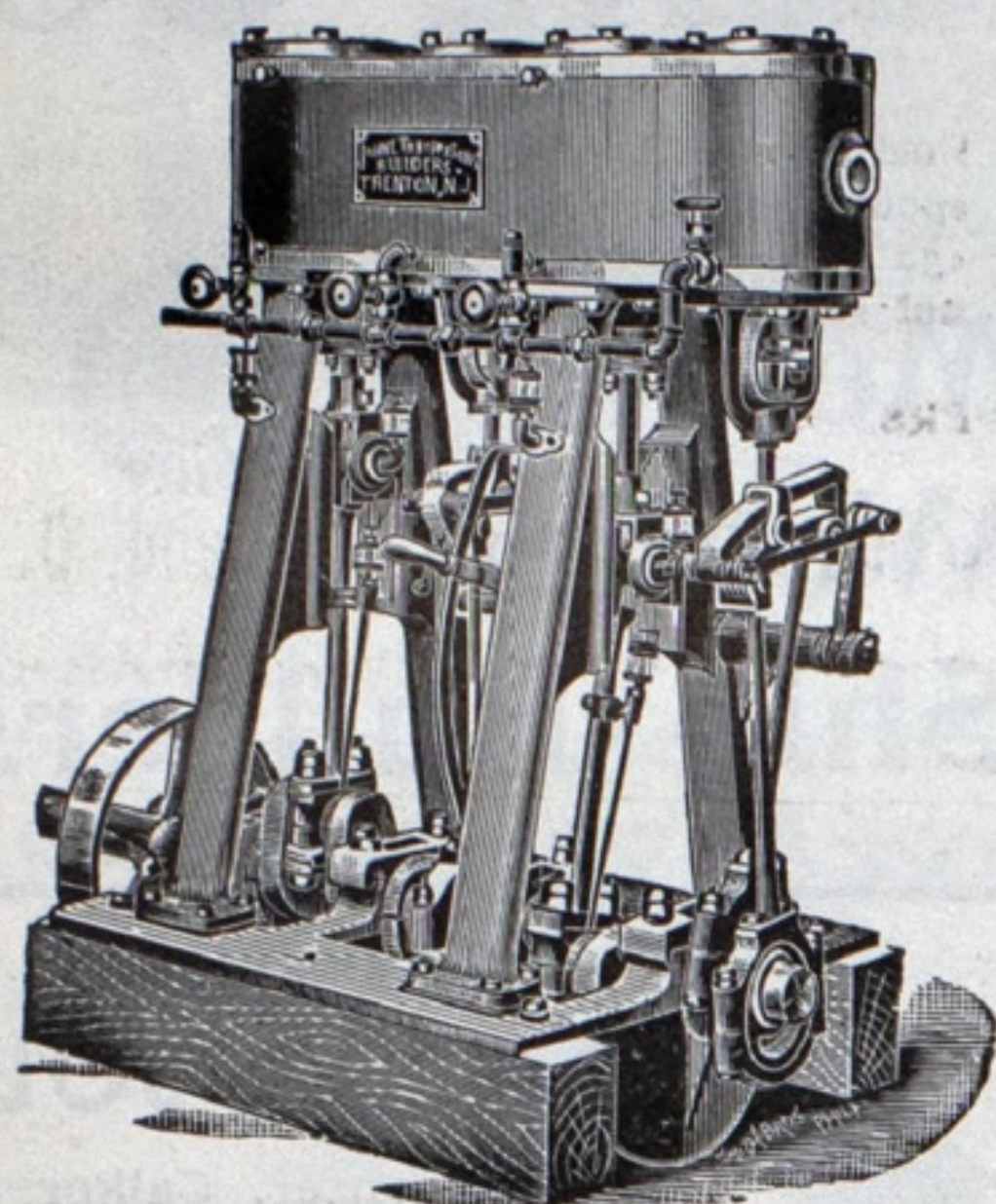
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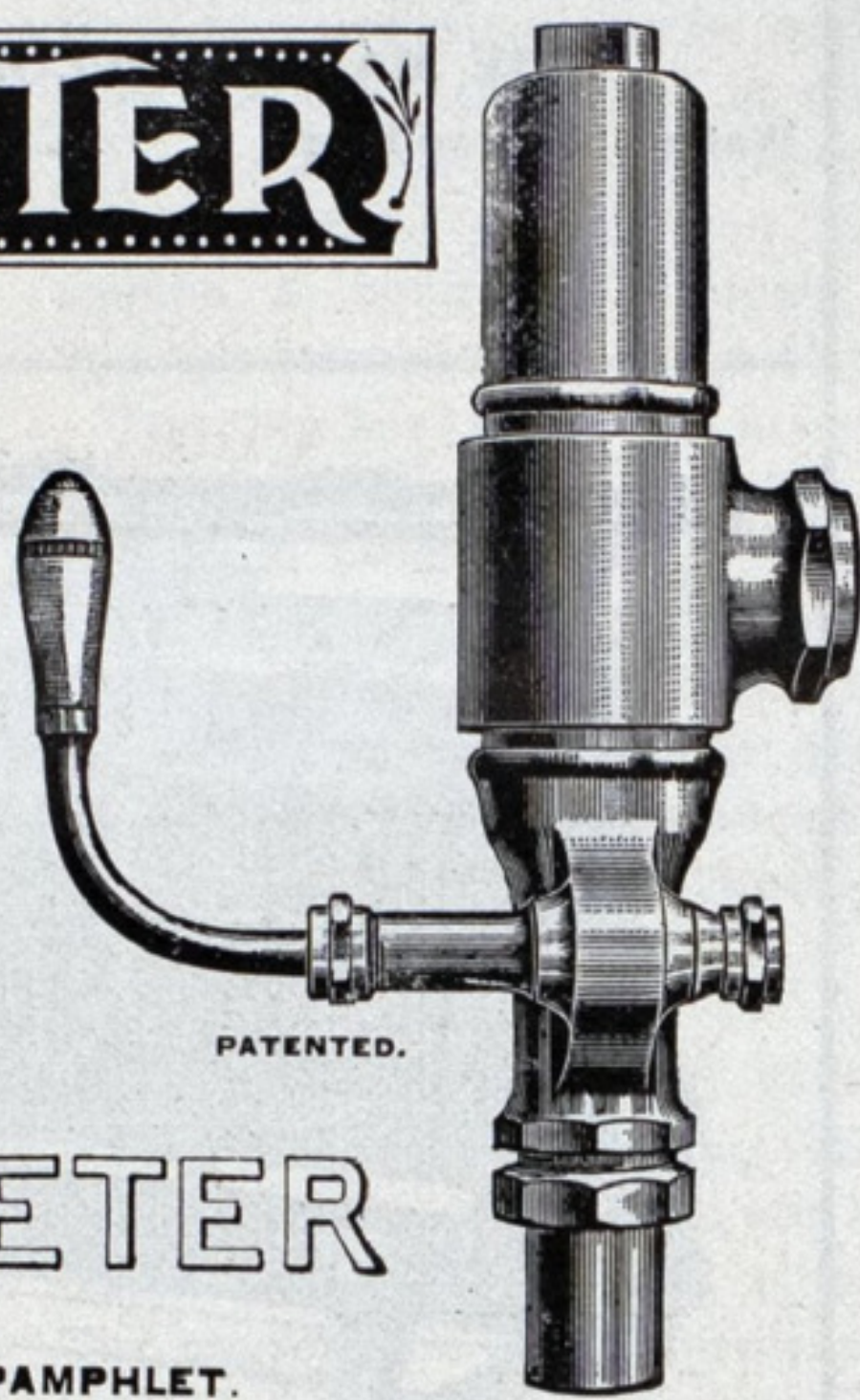
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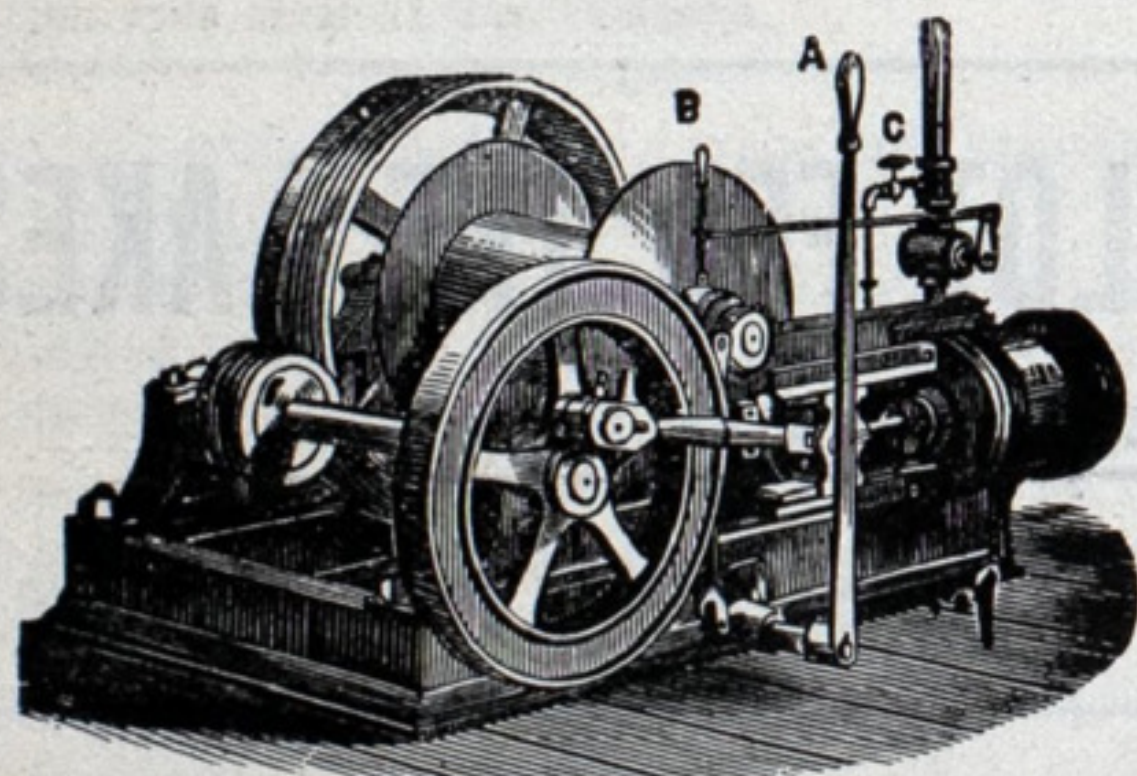
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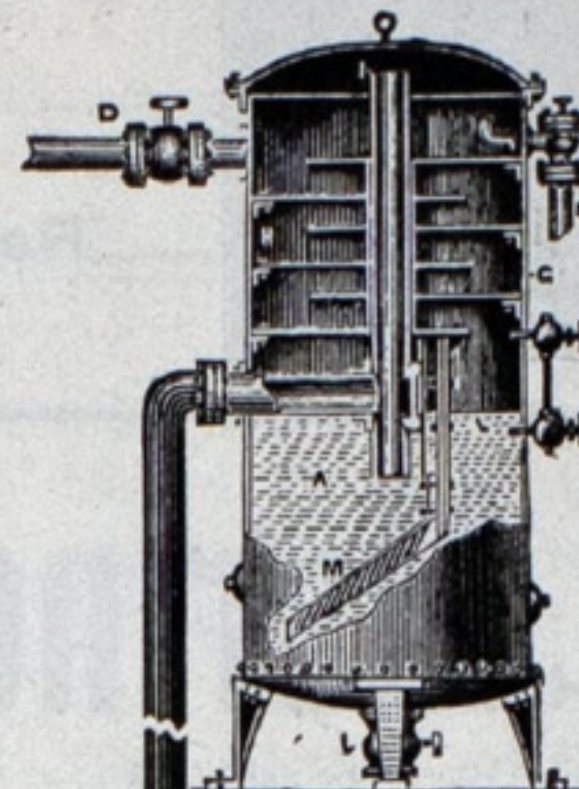
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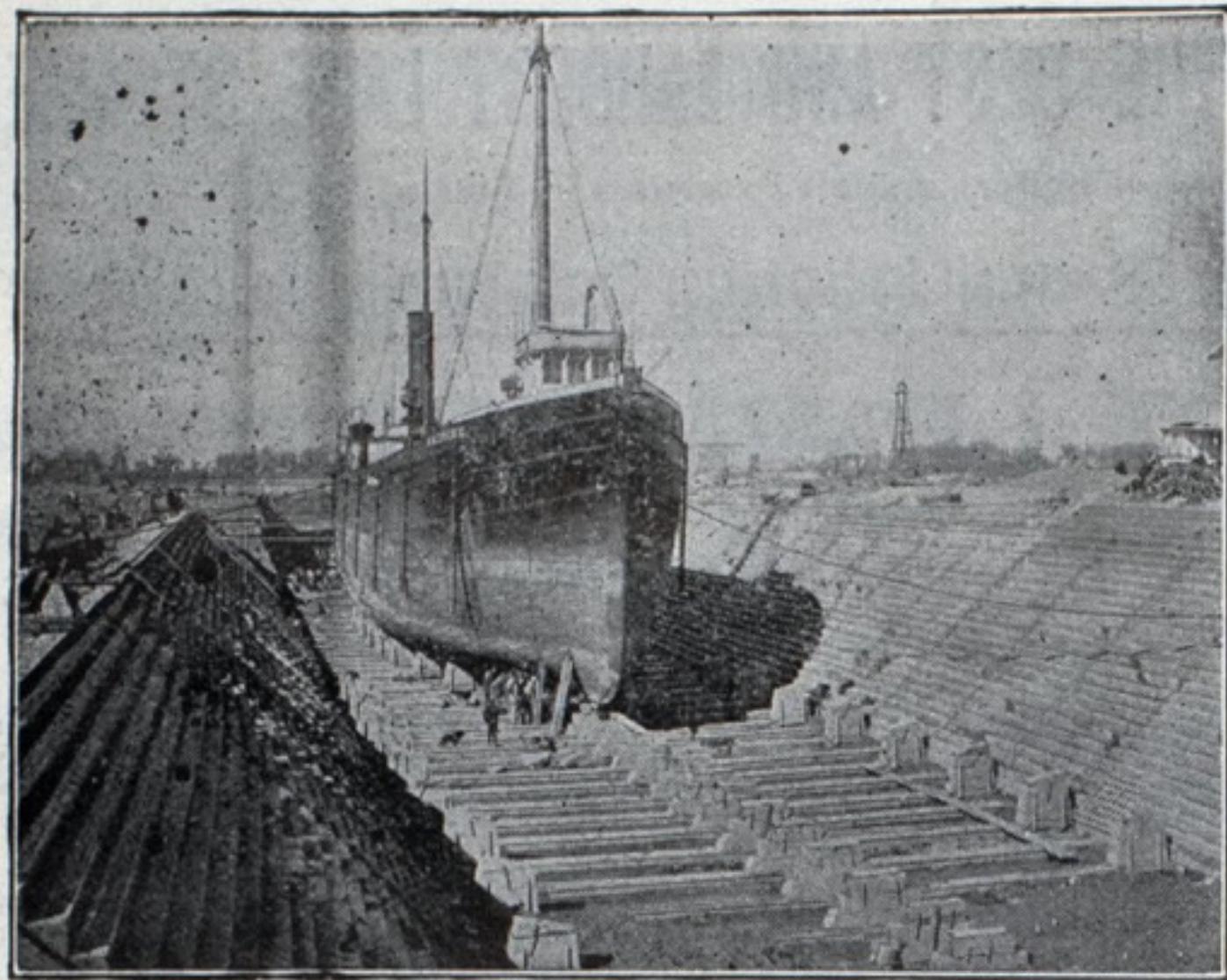
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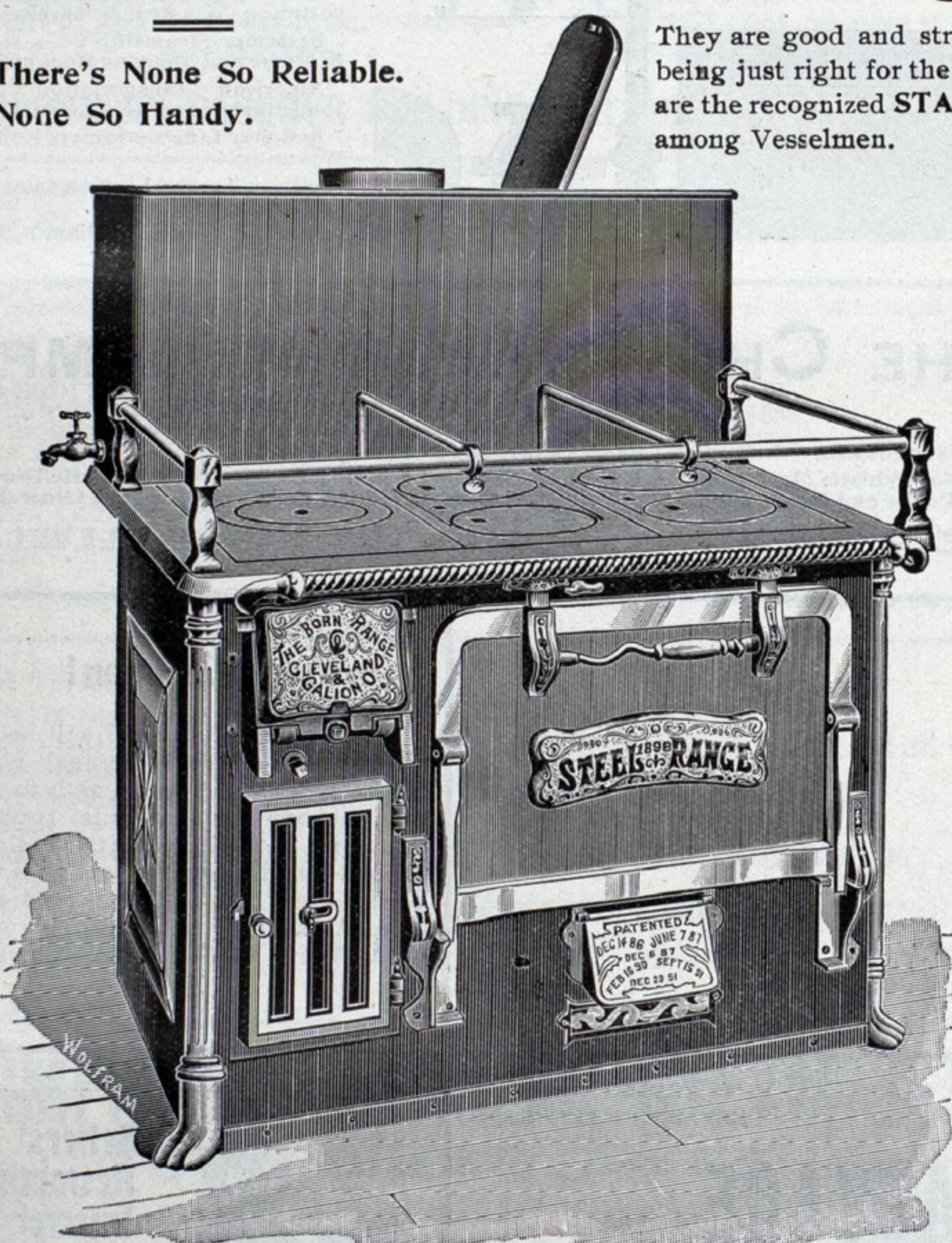
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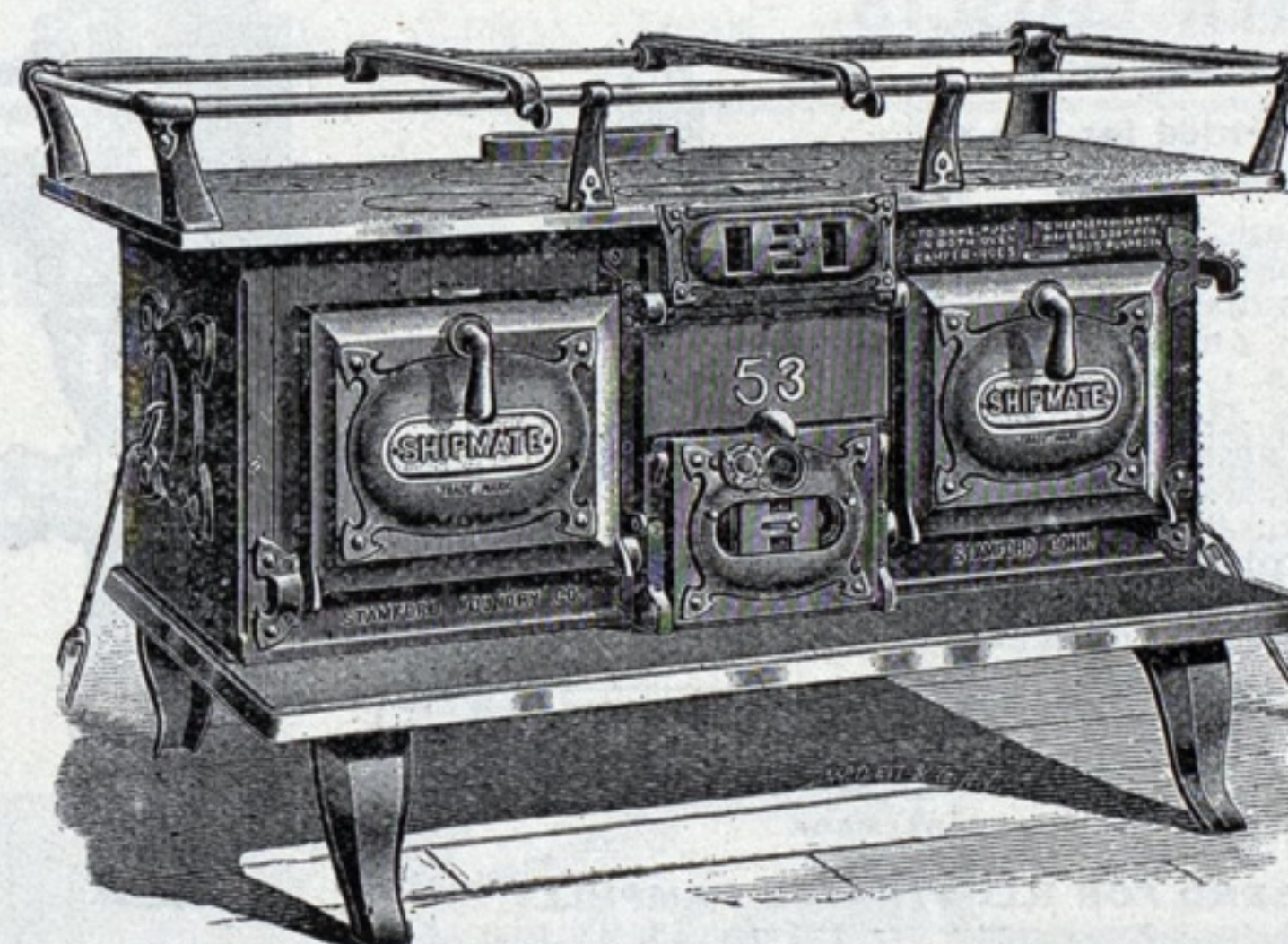


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